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BRUNEAU RESOURCE AREA
ENVIRONMENTAL ASSESSMENT NO. 99045
BATTLE CREEK ALLOTMENT
GRAZING MANAGEMENT

SEPTEMBER 1999

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19996UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT, BOISE FIELD OFFICE

EA TITLE PAGE, FONSI, AND DECISION RECORD

Applicant (if any) None (BLM Action)		Proposed Action Battle Creek Grazing Mgmt.		Serial No.	EA No. 99045
State IDAHO	County Owhyee	District LSRD	Resource Area Bruneau	Authority FLPMA	
Prepared By (signature) Matthew McCoy		Title Team Lead/GIS Specialist			Report Date 09/27/1999

LANDS INVOLVED

Meridian	Township	Range	Section(s)	Acres
BOISE	5 to 10 South	1 West to 5 East	See EA Maps	202,490

FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment No. 99045 adequately analyzes the impacts of the proposed action and indicates there will be no significant adverse effects on the quality of the human environment. Therefore, no Environmental Impact Statement will be prepared.

DECISION RECORD

Decision: The attached EA #99045 updates and replaces an earlier version, having the same EA number, which was completed in July 1999. The original EA was distributed with proposed grazing decisions that initiated a 15-day protest period in accordance with 43 CFR 4160.2. In response to protests and comments received, the EA has been modified slightly to incorporate the new information. Final grazing decisions will be issued to implement the proposed action analyzed in the attached EA.

Rationale: The final grazing decisions referenced above will each include a rationale for implementing the specified actions. All proposed actions are in conformance with the Bruneau Management Framework Plan, which is the applicable BLM land use plan.

The proposed action is in conformance with the applicable land use plan.

Terrance M. Costello
Acting Bruneau Field Manager

9/28/99
Date

Reviewed by Environmental Coordinator (optional):

MC 9-28-99
Initials and Date

ID-01-1791-2 (May 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT, BOISE FIELD OFFICE

ENVIRONMENTAL ASSESSMENT FACE SHEET

EA No. 99045

Consideration of Critical Elements

	No <u>Present</u>		Present, <u>No Impact</u>		Present, <u>Discussed in EA</u>
Air Quality Concerns	<u>x</u>	.....	_____	...	_____
Areas of Critical Environmental Concern ...	<u>x</u>	.....	_____	...	_____
Cultural Resources .....	_____	.....	_____	...	<u>x</u>
Prime or Unique Farm Land	<u>x</u>	.....	_____	...	_____
Floodplains	<u>x</u>	.....	_____	...	_____
Native American Religious Concerns .....	_____	.....	_____	...	_____
Special Status Species .....	_____	.....	_____	...	<u>x</u>
Hazardous Substances or Solid Wastes	<u>x</u>	.....	_____	...	_____
Water Quality Concerns .....	_____	.....	_____	...	<u>x</u>
Wetlands/Riparian Zones .....	_____	.....	_____	...	<u>x</u>
Wild and Scenic Rivers (eligible)	<u>x</u>	.....	_____	...	_____
Wilderness Study Areas .....	_____	.....	_____	...	<u>x</u>
Wild Horse Herd Management Areas	<u>x</u>	.....	_____	...	_____

BLM Staff Input/Review

Name	Resource Expertise	Initials	Date
<u>Ann Debolt - Botanist</u>		<u>AD</u>	<u>9-27-99</u>
<u>Frank Jenks - Outdoor Recreation Planner</u>		<u>FJ</u>	<u>9-27-99</u>
<u>Sam Mattise - Wildlife Biologist</u>		<u>SM</u>	<u>9/27/99</u>
<u>Matthew McCoy - Team Lead/GIS Specialist</u>		<u>MM</u>	<u>9-27-99</u>
<u>Lois Palmgren - Archeology Technician</u>		<u>LP</u>	<u>9/28/99</u>
<u>Jake C. Vialpando - Rangeland Management Specialist</u>		<u>J.V.</u>	<u>9-27-99</u>
<u>Bruce Zoellick - Fisheries Biologist</u>		<u>BZ</u>	<u>9-28-99</u>

ID-01-1791-4 (May 1994)

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INTRODUCTION

Need for the Proposed Action

Changes in livestock grazing management are needed to improve resource conditions in the Battle Creek Allotment, located in southwestern Idaho (Map 1). In the Final Battle Creek Allotment Analysis, Interpretation, and Evaluation (AIE), distributed in July 1999, we indicated that grazing management in the Allotment has been inadequate to achieve several land use plan objectives and to comply with Idaho Water Quality Standards (USDI 1999). The Proposed Action is intended to reverse unacceptable range, watershed, and wildlife habitat conditions, and to ensure progress toward meeting current management objectives and standards.

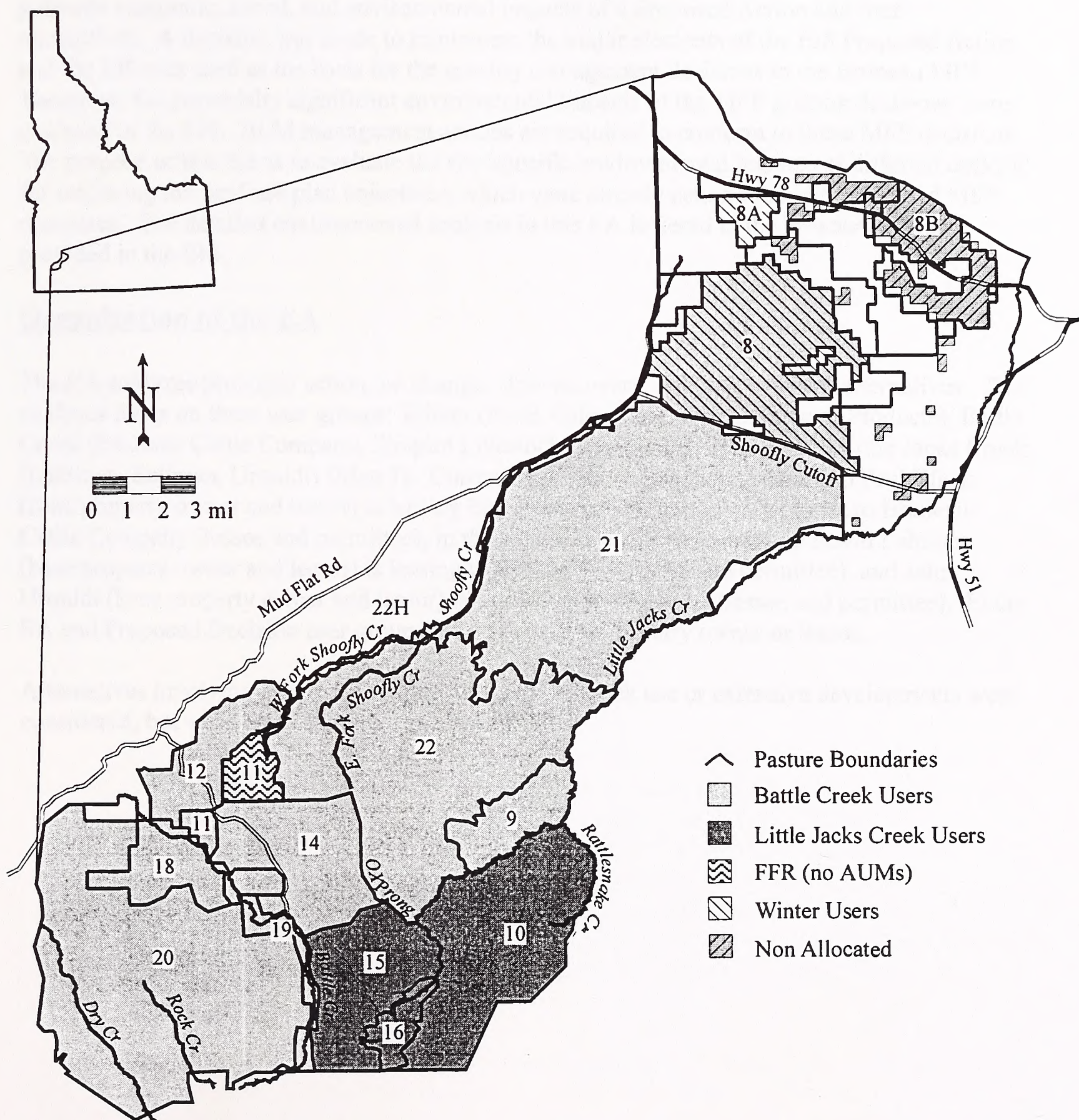
Conformance with the Land Use Plan

The Bruneau Management Framework Plan (MFP), approved on March 30, 1983, is the applicable land use plan for the Battle Creek Allotment (USDI 1983). As mentioned above, in the AIE we found that current livestock grazing management is not making progress toward achieving many of the MFP objectives. The Proposed Action conforms with the MFP, and is expected to make progress toward MFP objectives that currently are not being met. Appendix A includes two tables that list the expected degree of progress toward achieving applicable MFP objectives for the Proposed Action and each alternative.

Relationship to Statutes, Regulations, or Other Plans

Based upon detailed evaluation and public input, the Proposed Action complies with all State and federal laws and regulations, and is consistent with federal, State, and local plans and programs. For example, the Proposed Action complies with section 302(a) of the Federal Land Policy and Management Act (FLPMA), which states, "The Secretary shall manage the public lands under principles of multiple use and sustained yield, in accordance with the land use plans developed by him under section 202 of this Act." Other examples include consistency with the Endangered Species Act, the Idaho Water Quality Standards, and various Idaho Department of Fish and Game management plans. In addition, we believe the Proposed Action is consistent with Owyhee County Land Use Plan, to the maximum extent consistent with the laws governing the administration of the public lands.

BLM standards and guidelines for grazing administration in Idaho were approved by the Secretary of Interior on August 12, 1997, in accordance with 43 CFR 4180.2. These standards and guidelines were found to be consistent with the Bruneau MFP. Because the objectives of the MFP are more specific than the standards and guidelines, conformance with the MFP will ensure compliance with the standards and guidelines. Pursuant to 43 CFR 1610.5-3, all BLM management actions must conform to the approved land use plan. As mentioned above, Appendix A presents a MFP conformance analysis for the Proposed Action and alternatives.



Map 1. Battle Creek, Winter, Little Jacks Creek, and non-allocated use areas, Battle Creek Allotment.

PROPOSED ACTION

The Bruneau-Kuna Grazing Environmental Impact Statement (EIS), distributed in 1982, analyzed the effects of livestock grazing management on 2,379,014 acres of public land in southwestern Idaho, including the Battle Creek Allotment (USDI 1982). The EIS addressed the potential economic, social, and environmental impacts of a Proposed Action and four alternatives. A decision was made to implement the major elements of the EIS Proposed Action, and the EIS was used as the basis for the grazing management decisions in the Bruneau MFP. Therefore, the potentially significant environmental impacts of the MFP grazing decisions were analyzed in the EIS. BLM management actions are required to conform to those MFP decisions. The purpose of this EA is to evaluate the site-specific environmental impacts of different options for achieving the land use plan objectives, which were already determined in the EIS and MFP processes. The detailed environmental analysis in this EA is tiered to the broader analysis provided in the EIS.

Organization of the EA

The EA analyzes proposed action, no change, slow recovery, and fast recovery alternatives. The analyses focus on three user groups: Winter (Field, Gillespie, Owyhee Calcium Products); Battle Creek (Bruneau Cattle Company, Simplot Livestock/Battle Creek, Black); and Little Jacks Creek (Lahtinen, Sellman, Urquidi) (Map 1). Currently, in the Battle Creek user group Paul Black (base property owner and lessor) is leasing his base property and grazing permit to Bruneau Cattle Company (lessee and permittee); in the Little Jacks Creek user group David Lahtinen (base property owner and lessor) is leasing to Paul Miller (lessee and permittee), and John Urquidi (base property owner and lessor) is leasing to Jesse Rubelt (lessee and permittee). In the EA and Proposed Decision user groups refer to the base property owner or lessor.

Alternatives involving closing substantial areas to livestock use or extensive developments were considered, but were not analyzed in this EA.

PROPOSED ACTION

The Proposed Action is to modify grazing management by emphasizing the use of deferment and deferred-rotation, and rest grazing systems, with the establishment of riparian and wet meadow pastures and exclosures. Use periods by pasture will be established based on riparian and upland vegetative requirements. Some key upland forage species would continue to be grazed during critical growth periods, but livestock use would be managed to minimize impacts, so that progress towards meeting Land Use Plan objectives is made. Management incorporates a combination of actions including an alternate-year rest in early spring range, a deferred-rotation grazing system in summer ranges, deferred grazing of late spring-summer pastures, exclusion of grazing in more highly degraded riparian areas until MFP objectives are met, and development of range improvements to improve livestock distribution and reduce localized impacts. The Proposed Action combines elements of all the proposals prepared by BLM and those submitted by the permittees and interested public. The Proposed Action would allocate AUMs by pasture in the Battle Creek Allotment (Table 1, Map 1).

Grazing Management

Permitted Use

Under this alternative a total of 13,006 animal unit months (AUMs) would be permitted in the Battle Creek Allotment (Table 1, Appendix B). This stocking rate is based on 1976-80 Licensed Use levels in the Final Battle Creek Allotment AIE (USDI 1999).

No permanent livestock reductions would be required as a result of the initial rest prescribed for the proposed riparian pastures. Stocking rates for riparian pastures with initial rest would be determined under the Resource Use Criteria, and are already included in the Permitted Use.

Areas currently not grazed by livestock within and near the C.J. Strike Wildlife Management Area would remain unallocated with the area's primary use designated for wildlife. These areas are proposed to remain part of the Battle Creek Allotment and management would focus on improving range condition and wildlife habitat. The Little Valley Livestock Holding Field located at T.7S R.5E section 6 (E1/2SE1/4) is the only exception and would continue to be authorized as an overnight holding facility during trailing. A Biological Soil Crusts reference area would be designated in pasture 8 and would be monitored and managed to maintain good condition (Map 2). If livestock impacts cause a decline in biological soil crust populations, fencing would be used to exclude livestock use.

A number of fences would be moved in the Little Jacks Creek area, specifically involving pasture 16. One new fence would be constructed outside of the WSA to allow for implementation of a deferred grazing system, separating pastures 10 and 15. In pasture 16, the west fenceline on public land would be removed and the north fenceline would be adjusted to create pasture 16R, a riparian exclosure including portions of Little Jacks Creek (Map 3). The current pasture 16 permittee would graze cattle in common use within pasture 10 during June and July; and pasture 15 during August and September. The existing pipeline in pasture 14 (Hutch Pipeline) would be extended to add a water trough in pasture 15 (Map 4). This trough

would replace use by livestock at the OX Prong water gap during August and September. Pasture 16R would be excluded from livestock grazing, creating a riparian exclosure.

Table 1. Permitted Use by User Group.

User Group	Pastures	Total Permitted Use (pre-1993 AUMs)	Suspended Use (AUMs)	Active Use (AUMs)
Winter	8, 8A	276	0	276
Battle Creek	8, 21, 22, 9, 12, 14, 18, 19, 20, 20R	11,198	0	11,198
Little Jacks Creek	10, 15	1,533	0	1,533
C.J. Strike WMA	1, 2, 3, 6, 7, 8B, and 8C.	0	0	0

Grazing System for Battle Creek and Winter Users

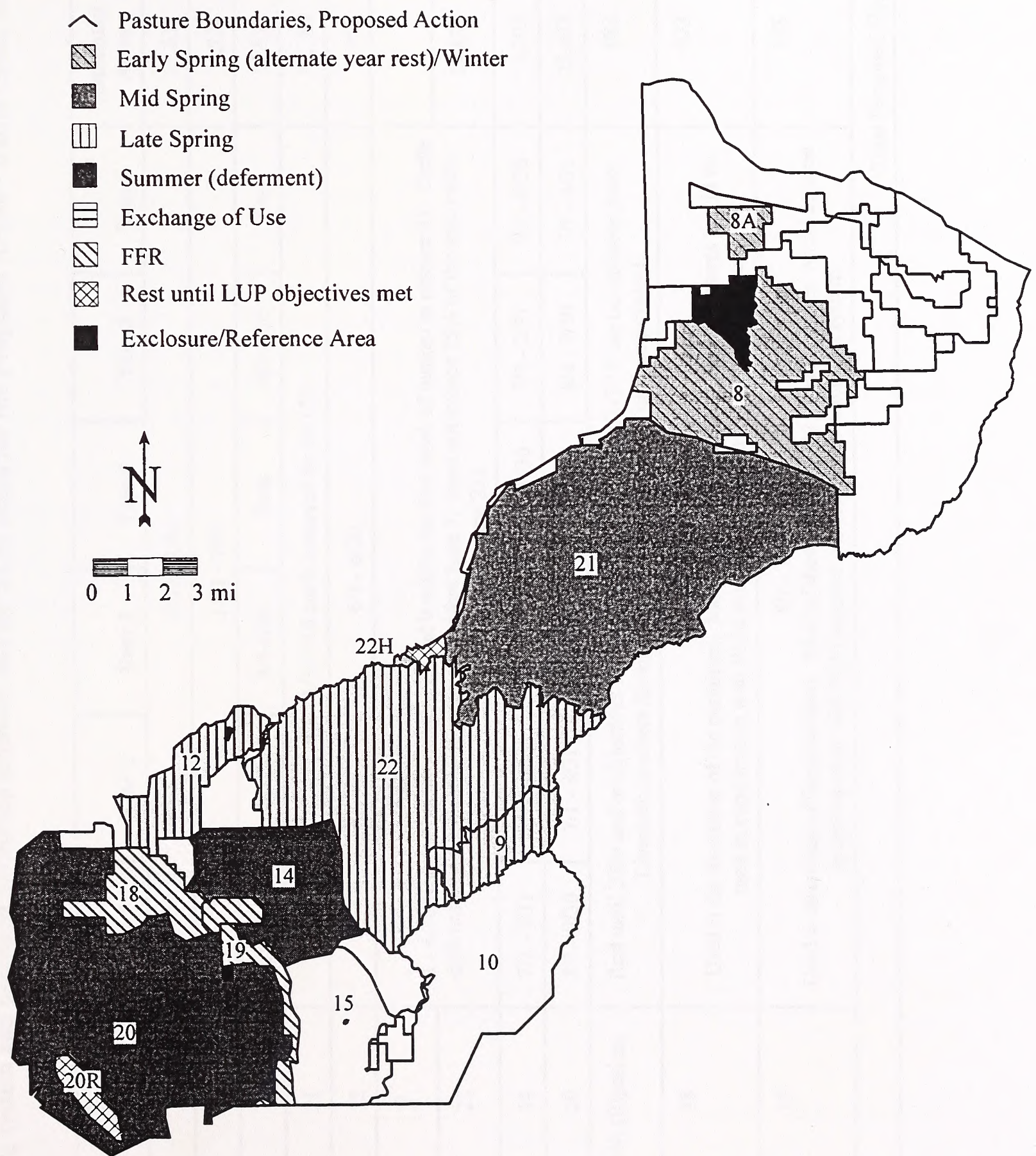
Map 2 and Table 2 outline the grazing system that would be permitted for the Battle Creek Allotment under this alternative.

Winter Grazing. Pasture 8. Use would occur every year from 11/1 through 1/31 for Craig Gillespie and Owhyee Calcium Products (OCP).

Pasture 8A. No rest is proposed. Use would occur every year from 11/1 through 1/31 for Terry Field. Starting in the year 2000 grazing season, livestock grazing would not be authorized in pasture 8A until the permittee reconstructs the pasture fences to BLM specifications.

Early Spring Grazing. Pasture 8. Rested in alternate years. Use would occur in alternate years from 4/1 through 4/30 for Bruneau Cattle Company (BCC) and Simplot Livestock/Battle Creek (SBC).

Mid Spring Grazing. Pasture 21. Use would occur every spring from 5/1 through 5/31. Permittees would be required to completely remove livestock from pasture 21 by June 15. Cattle tend to drift into pasture 22 and 9 within the first week of turnout in pasture 21. Cattle that drift onto the bench area of pasture 22 before June 1, must not exceed 25% of the total cattle numbers in pasture 21. Shoofly Creek in pasture 21 would be rested until MFP objectives are met; however, active trailing could occur in the spring and fall providing utilization and bank damage standards are met. During the rest period, livestock drifting into the rested Shoofly Creek area are to be removed immediately. If livestock use in the rested area results in a stubble height of <6 inches or >10% streambank damage, no fall trailing would be authorized for that year. After the required rest period, grazing would resume and be managed to meet stubble height and MFP criteria.



Map 2. General grazing systems for Battle Creek and Winter Users, Proposed Action, Battle Creek Allotment.

Table 2. Grazing system and proposed permitted livestock use for BLM lands for the Proposed Action - Battle Creek and Winter users.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Estimated Acres	Permitted Use (AUMs)
Winter	8			11/1 - 1/31				13,633	155
	8A			11/1 - 1/31				1,224	121
Early Spring	8	4/1-4/30	Rest	4/1-4/30	Rest	4/1-4/30	Rest	13,633	807
Mid Spring	21	5/1 - 5/31 (All cattle removed by 06/15)						32,789	1,865
Late Spring	12	6/1 - 6/30						4,697	566
	9	5/1 - 6/30 (Cattle drift into pasture 22 and 9 within the first week of turnout in pasture 21. Cattle drift onto the bench area of pasture 22 before June 1, must not exceed 25% of the total cattle numbers in pasture 21).							2,460
	22							24,879	
Summer	14	7/1 - 7/31	9/1 - 9/30	7/1 - 7/31	9/01 - 9/30	7/1 - 7/31	9/1 - 9/30	8,205	1,328
	20	8/1 - 9/30	7/1 - 8/31	8/1 - 9/30	7/1 - 8/31	8/1 - 9/30	7/1 - 8/31	25,467	3,830
	20R (Riparian)	Rest until 2006 and/or objectives for Dry Creek are met; then 7/1-7/10 use on alternate years. Livestock numbers during will not exceed 100 cattle or the equivalent.						983	33
Fenced Federal Range (FFR)	18	4/1 - 10/30 Used at the discretion of the permittees. Most of these pastures and private pastures would be used in combination with BLM summer pastures in the deferment system.						923	214
	19	4/1 - 10/30 Used at discretion of the permittees. Most of these pastures and private pastures would be used in combination with BLM summer pastures in the deferment system.						398	89
Total Permitted Use								11,474	

Pasture 22H. Would be used only for spring and fall trailing. Cattle would be trailed in the fall down Between the Creeks to pasture 22H. Riders would be required to ensure the gate into pasture 22H, on the East Fork of Shoofly Creek, is opened prior to cattle reaching the gate so that cattle don't gather at a closed gate increasing impacts to the East Fork. After cattle are watered within pasture 22H, livestock would be trailed along the road and kept out of Shoofly Creek as best as possible. If Riparian Use Criteria are exceeded during fall trailing, then spring and fall trailing the following year would not be authorized on Shoofly and East Fork of Shoofly creeks.

Late Spring Grazing. Pasture 22. Use would occur every year from 5/1 through 6/30. Livestock would be permitted to be herded up the East Fork of Shoofly Creek on alternate years, authorized to begin in 2001. Use of riparian areas on the East Fork would be authorized in the second grazing season after implementation of the decision. Permittees would be responsible to ensure that a 6-inch stubble height on herbaceous riparian vegetation during the grazing period and <10% streambank damage is achieved on the East Fork Shoofly Creek. Closure of Upper East Fork Shoofly Reservoir and herding would be required annually as long as water is present in the reservoirs on the bench area of pasture 22.

Pasture 9. Use would occur every year from 5/1 through 6/30, in conjunction with pasture 22.

Pasture 12. Use would occur every year from 6/1 through 6/30. Herding would be required to eliminate drift to pasture 22. During years when Joe's Basin Reservoir dries up during June use, water hauling would be authorized in accordance with Appendix E.

Summer Grazing. Pastures 14 and 20. Pastures would be used in a deferred system. Use in pasture 14 would occur in July or September in alternate years. Use in pasture 20 would occur in August/September or July/August in alternate years.

Summer Riparian Pasture. Pasture 20R, a riparian pasture on Dry Creek, will be rested until the stream is in proper functioning condition. After the required rest period, use will occur 7/1 through 7/10 in alternate years with cattle numbers not exceeding 100 head or the equivalent. If during the 10 day use period <4-inch stubble height or >10% streambank damage occurs, livestock will be removed immediately. Adjustments to stocking levels will be made before the next grazing season to ensure standards are achieved. During the rest period, if cattle are found within the riparian pasture, action will be taken at the discretion of the authorized officer in accordance with 43 CFR 4140.1.

Once grazing resumes after the initial rest period, no livestock are authorized in the pasture outside the permitted 10-day grazing period. If unauthorized use occurs and either <6 inch stubble height or >10% streambank damage results, then the pasture will be rested during the next authorized use period. During permitted use periods, permittees will be responsible to

monitor grazing on the creek to ensure utilization standards (median stubble height of 4 inches) are not exceeded. If utilization standards are exceeded cattle will be removed immediately.

FFR Pastures. Pastures 18 and 19. Pastures 18 and 19 could be used at the discretion of the permittees from 4/1 through 10/30, providing the use of the public lands portion is in conformance with the land use plan objectives and the 43 CFR 4180 Regulations-Rangeland Health Standards and Guidelines for Idaho Effective 8/12/97. Appendix C summarizes the proposed FFR pastures with the permitted use (AUMs) per pasture. At the permittee's request, an Exchange-of-Use proposal may be agreed upon authorizing livestock use at a lesser percent public land (<100%), giving credit to the permittee for use of their unfenced private lands within the pasture.

New Enclosures. Four enclosure/reference areas would protect riparian and upland plant communities (Table 3).

Table 3. Description of enclosures/reference area for Proposed Action - Battle Creek and Winter users.

Name	Primary Purposes	Size (acres)
Biological Soil Crusts	Reference area for biological soil crusts in salt desert shrub communities. Area would be protected from livestock use by active herding and water and salt placement. If the measures prove inadequate, an enclosure would be constructed.	1,735
Shoofly Cottonwood	Protect remnant cottonwood stand for redband trout and migratory songbird habitat.	12
Shoofly Creek	A temporary enclosure would eliminate spring use on Shoofly Creek allowing recovery of riparian vegetation to benefit redband trout and mountain quail habitat.	304
Hutch Springs	Protect a series of springs and seeps from livestock impacts with an enclosure.	68
Snow Creek	Protect remnant aspen stand, springhead, and associated riparian along area Snow Creek. Snow Creek Spring would be reconstructed including a watering trough for livestock and wildlife outside of the enclosure and away from the riparian area.	26
Total		2,145

Grazing System for Little Jacks Creek Users

Map 3 and Table 4 outline the grazing system that would be permitted for the Battle Creek Allotment under this alternative.

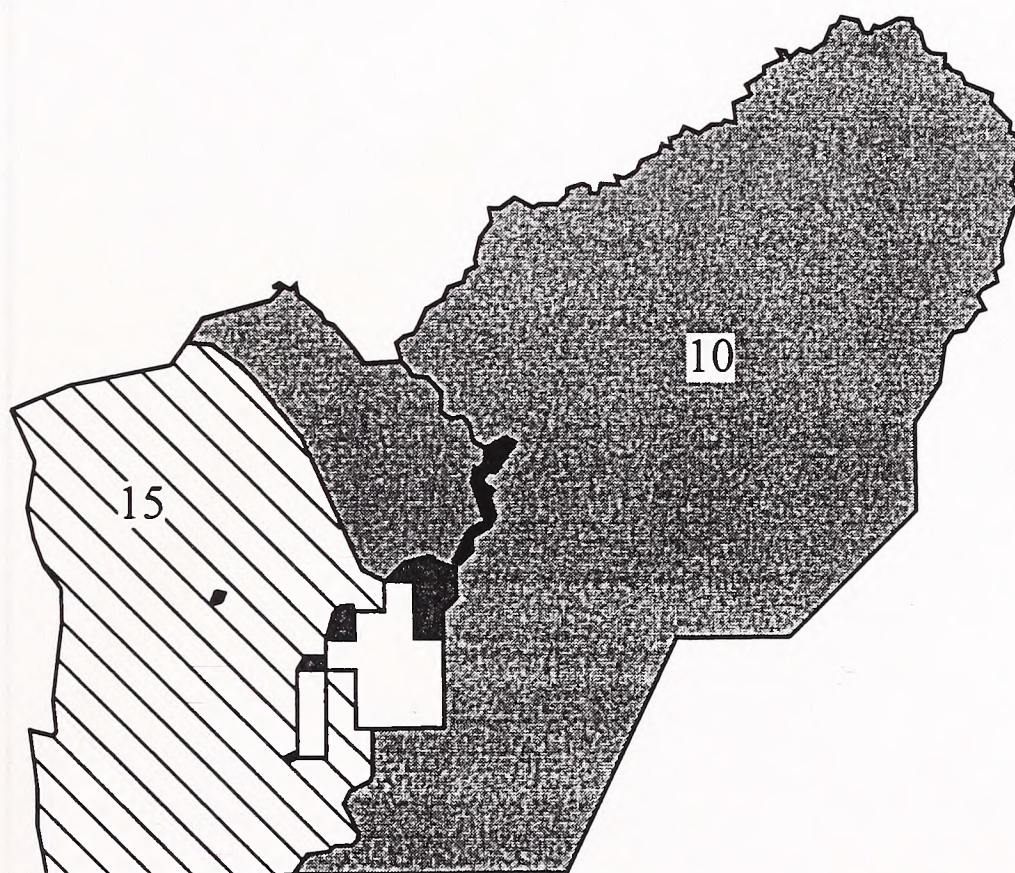
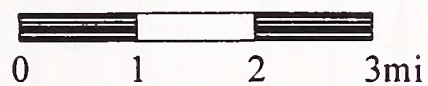
^ Pasture Boundaries, Proposed Action

■ Late Spring/Summer

▨ Summer

■ Exclosure

■ Rest until LUP objective met



Map 3. General grazing system for the Little Jacks Creek Users, Proposed Action, Battle Creek Allotment.

Table 4. Grazing system and permitted livestock use for BLM lands for the Proposed Action - Little Jacks Creek Users.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Late Spring/ Summer	10		6/1-7/31			13,533	770
Summer	15		8/1 - 9/30			7,484	763
Total Permitted Use							1,533

Late Spring/Summer Grazing. Pasture 10. Use would occur every year from 6/1 through 7/31. No livestock are authorized downstream of the OX Prong water gap. If livestock drift into this portion of the creek and stubble heights at the end of the grazing season are <6 inches or streambank damage is >10%, then seven days of livestock use will be suspended at the end of the next grazing season in pasture 10. For continued violations, the seven day suspension will be compounded. This standard also applies to the temporary exclosure on Little Jacks Creek. It is essential that all fences are maintained and monitored by the permittees throughout the grazing season. Once the temporary fence is removed, riding cattle out of the creek during the grazing period would be required to ensure that the Operational and Resource Use Criteria continue to be met.

Summer Grazing. Pasture 15. Use would occur every year from 8/1 through 9/30. Additional water will be provided from the Hutch Pipeline during August and September. If it is determined that sufficient water cannot be provided during September in alternate years when the system is also being used in pasture 14, then permittees will be authorized to haul water to the new trough.

New Exclosures. Five permanent exclosures and one temporary exclosure would protect riparian areas (Table 5).

Table 5. Description of exclosures for Proposed Action - Little Jacks Creek Users.

Name	Primary Purposes	Size (acres)
Little Jacks Creek	Temporary exclosure to rest Little Jacks Creek from livestock use (until MFP objectives are met) to improve habitats for redband trout and spotted frogs.	84
Little Jacks Creek (16R)	Protect riparian vegetation on Little Jacks Creek for sage grouse and spotted frogs.	150
Spring at T.9S R.2E Section 32	Protect springhead and associated riparian vegetation from livestock grazing.	5
Wet Meadow at T.9S R.2E Section 33	Protect wet meadow and associated riparian vegetation from livestock grazing.	40
Wet Meadow at T.10S R.2E Section 5	Protect wet meadow and associated riparian vegetation from livestock grazing. The reservoir would be fenced outside of the wet meadow exclosure.	17
Spring at T.10S R.2E Section 5	Protect riparian vegetation on Little Jacks Creek for sage grouse and spotted frogs.	3
Wet Meadow at T. 9S R. 2E Section 33	Protect riparian vegetation on Little Jacks Creek for sage grouse and spotted frogs.	5
Total		304

Operational and Resource Use Criteria (all user groups)

Livestock Distribution. Salt and/or supplement would not be placed within 1/4 mile of springs, streams, meadows, aspen stands, playas, or water developments. Regular (on alternate days) riding in all pastures is required to herd cattle away from springs, seeps, wet meadows, and creeks.

Trailing Routes. All trailing will consist of supervised herding of livestock from one point to another. Livestock are prohibited from "drifting" through any pasture during the trailing periods. Livestock are prohibited to "overnight" on public land unless authorized prior to the start of trailing. Any alteration of these trail routes and stipulations must be approved by BLM prior to initiation of trailing. The specified trail routes and stipulations are contained in Appendix D.

Upland Utilization Standards. A 50 percent utilization standard on current year's growth of key upland grass and shrub species would be required. A 30 percent utilization standard on current year's growth of key upland browse species by livestock in mule deer winter range would be required. A 50 percent utilization by all classes of animals combined (livestock and wildlife) would be the standard on current year's growth of key upland browse species in mule deer summer range.

Riparian Use Criteria. Utilization of herbaceous vegetation on streambanks should meet the criteria in Table 6. In general, utilization of herbaceous vegetation would be limited to maintaining at least 3-inch median stubble heights during the period a pasture is grazed, with some differences due to seasons of use or rest systems (Table 6). When stubble heights approach 4 inches, additional management actions such as herding should be employed to distribute cows away from riparian areas for the remainder of the use period.

Table 6. Median stubble heights standards for herbaceous riparian vegetation.

Season of Use	Streams in Poor - Fair Condition	Streams in Good Condition, or Streams Rested Every Other Year
Early Season (April - June)	>4 inches	≥ 3 inches
Hot or Late Season (July on)	≥ 6 inches	≥ 4 inches

Stubble height criteria are intended as guidelines to promote good riparian management and continued habitat recovery. These criteria apply to segments of Little Jacks, West Fork Shoofly, and Shoofly creeks that were identified in the MFP for habitat improvement and are designed to maintain these streams in good habitat condition after initially being rested from livestock use.

Some streams (ie. East Fork Shoofly Creek, Dry Creek) will have mandatory utilization levels that are not to be exceeded during the grazing period and are detailed elsewhere in the decision.

If utilization levels exceed these guidelines, stream segments are unlikely to improve or continue to meet management objectives after initial periods of rest from livestock use. BLM will periodically monitor trend of riparian areas to determine if streams continue to meet management objectives. Streams identified for improvement in the MFP must minimally be in good condition with a static trend. Dry Creek must minimally be in proper functioning condition with a static trend. Trend will be determined using the following factors:

- amount of bare soil
- levels of bank trampling and shearing
- bank stability
- vegetative cover on streambanks
- recruitment/growth of woody riparian shrubs

Stream segments with trailing of cattle up or down the valley containing that segment should not have streambank damage exceeding 10 percent of the stream length after any trailing movement

Riparian Assessment Following Rest Periods. If management objectives are not continually met or trend is downward after the first two years of grazing following initial rest from livestock use, the authorized use period for the affected pasture will be reduced by one week in the year it is scheduled for use, *and the recommended stubble heights would become stipulations to grazing use.* After the third year, adjustments to the length of the authorized use period for a pasture would be based on meeting the stubble-height criteria. If the stubble-height criteria is met, the week of use would be restored. If the stubble-height criteria is not met, the one week reduction in use would continue.

In pastures where an upward trend or meeting MFP objectives is not detected despite achieving utilization levels >50 percent or a median stubble height of >4 inches, more restrictive criteria would be implemented. Utilization standards of <30 percent utilization or a median stubble height of >6 inches would be required for those reaches.

Streams that are rested to improve riparian/aquatic habitat (rested until MFP objectives are met) would not be grazed by livestock until streambank stability is >85 percent, median stubble height of herbaceous vegetation is >4 inches, percent bare soil (of streambanks) is <10 percent, and there is an upward trend in the overall condition of riparian/aquatic habitat. These criteria are the mid-points for fair and good ratings for those habitat parameters identified in the MFP (Table 7).

Riparian Pastures. Stocking levels are set for 50 percent utilization, or so that a median stubble-height of four inches is maintained during the use period and will not exceed 100 head of

livestock or the equivalent for the 10-day use period. Stocking levels may be adjusted (up or down) based on monitoring of riparian/aquatic habitat conditions.

Wet Meadow/Spring/Seep Stubble Heights. The Idaho Sage Grouse Management Plan states that brood habitat should include a good variety of succulent vegetation and be adjacent to escape and loafing cover. Meadows, riparian habitat and other moist areas provide important summer range for sage grouse. The Guidelines for Management of Sage Grouse Populations and Habitats states that in brood rearing habitat, land use practices that reduce soil moisture, cause invasion of exotic plants and reduce abundance and diversity of forbs should be avoided.

Table 7. Habitat parameters monitored to determined the condition of riparian/aquatic habitats of streams in the allotments, based on objectives in the Bruneau MFP¹ (USDI, 1983).

Parameter	Fair Condition	Good Condition
Stream Shading (from riparian trees/shrubs)	> 40 - 60%	≥ 60 - 80%
Stubble Height of Herbaceous Vegetation; Amount of bare soil, trampled or sheared stream banks	≤ 3 inches, < 20%	> 4 inches, < 10%
Bank Stability (% bank actively eroding)	≤ 20%	≤ 10%
Stream Channel Stability (scouring, bank erosion, and channel movement)	< 10% scouring or movement	< 5% scouring or movement
Fine Sediment (sand and smaller sized particles)	< 25%	< 15%
Adult Fish Cover (pools, undercut banks, overhanging vegetation, etc.)	> 10% of stream channel	> 25% of stream channel

¹ "Where grazing is excluded, livestock use could be reintroduced after the time period required to bring habitat conditions to an upward trend and fair to good condition. Livestock use could then continue as long as these conditions were maintained." Bruneau MFP 1983.

Wet meadow utilization in pastures 22, 14, 10, 15, and 16 would be limited to less than 50 percent of herbaceous plant species, or a median stubble height of greater than 4 inches to be measured at the end of the livestock use period. Utilization of wet meadows in pasture 20 not associated with reservoirs and undeveloped springs would be limited to >4 inches at the end of the livestock use period.

In most cases, BLM thinks maintaining a 4-inch residual stubble height on meadow and spring vegetation will prevent or minimize soil damage due to livestock hoof action. However, some meadow and spring soils may still be saturated during the livestock use period such that damage

could occur due to livestock hooves sinking into wet soils. BLM will monitor levels of meadow and spring soil damage attributable to livestock to determine if maintenance of 4-inches of residual stubble is preventing damage to meadow soils.

Following the third year of implementation, meadows and springs will be reevaluated, and, if necessary, adjustments in period of use and stocking rate would be made.

Sage Grouse Nesting Stubble Height and Cover The Idaho Sage Grouse Management Plan states that nesting habitat should have 7 inches or more of grass and forb understory and 15 - 25% sagebrush canopy cover during the May nesting period. The Guidelines for Management of Sage Grouse Populations and Habitats (Connelly et al. 1999, inprep) being developed by the Western Association Fish and Wildlife Agencies, states that breeding habitats should be managed to provide 15 - 25% canopy cover of sagebrush, herbaceous cover averaging ≥ 18 cm in height, a $\geq 15\%$ canopy cover during spring and having an overall visual obstruction reading (Robel et al. 1970) of ≥ 1.5 dm. Protection of sagebrush and herbaceous understory within 3.2 km of leks should provide adequate breeding habitat.

Sage Grouse Habitat Cover. The Idaho Sage Grouse Management Plan states that winter habitat should be managed for a sagebrush canopy of 15 - 25% with heights of 10 - 12 inches above the average snow level. Management of winter habitat should be directed at maintaining a mosaic of sagebrush height and cover classes thus allowing sage grouse access to sagebrush stands with canopy cover of 10 - 25% and heights of at least 25 - 30 cm regardless of snow cover.

Grazing Administration

Permitted Use Adjustments. Permitted use dates would be assigned by pasture and season of use for each permittee (Appendix B). Pasture 8 will be assigned 963 AUMs of permitted use, not to be exceeded annually. Actual Use Reports are required by pasture by each permittee and are due within 15 days following completion of the authorized use periods or no later than the beginning of the next grazing season (March 1). If monitoring and actual use indicate permitted use adjustments are required, then current permits may be canceled, modified, and reissued. It is essential that actual use reports accurately report livestock numbers by pasture.

Grazing Permit. New 10-year permits would be issued containing a Term and Condition that all grazing use must be in accordance with a Final Decision.

New or Modified Terms and Conditions.

All grazing permits would contain the following current general Terms and Conditions:

- (1) All trailing across BLM will be in accordance with the Final Decision and will be coordinated with the authorized officer prior to initiating trailing activities. A trailing permit is required to move livestock across public land.
- (2) Livestock exclosures located within your grazing allotment are closed to all domestic livestock.
- (3) Any livestock not owned by the permittee must be controlled while on BLM land and must be under a valid and current livestock lease agreement prior to turn out. Leased livestock are subject to the surcharge rate as per grazing regulations.
- (4) Livestock turnout is subject to the LSRD Range Readiness Criteria.
- (5) Changes to the scheduled use requires prior approval.
- (6) The permittee is required to maintain range improvements in accordance with the cooperative agreements and range improvement permits in which you are a signator or assignee. All maintenance of Rangeland Improvements within Wilderness Study Areas requires consultation with the Authorized Officer.
- (7) The Land Use Plan allowable use level for upland vegetation is 50% of the current years growth. Livestock should be removed from the use area, pasture or allotment, when this utilization level has been reached.
- (8) All appropriate documentation regarding base property leases, lands offered for exchange of use, and livestock control agreements must be approved prior to turn out. Leases of land and/or livestock must be notarized prior to submission and be in compliance with LSRD policy.
- (9) Failure to pay the grazing bill within 15 days of the due date specified shall result in a late fee assessment of \$25.00 or 10% of the grazing bill, whichever is greater, but not to exceed \$250.00. Payment made later than 15 days after the due date shall include the appropriate late fee assessment. Failure to make payment within 30 days may be a violation of 43 CFR 4140.1(b)(1) and shall result in action by the Authorized Officer under 43 CFR 4150.1 and 4160.1-2.

In addition, the following Terms and Conditions would be added to the grazing permits:

- (1) All grazing use must be carried out in accordance with the Final Decision issued by BLM pertaining to the Battle Creek Allotment. (This Term and Condition includes all changes identified including Contingency Actions, Grazing System, Permitted Use, Operational and Resource Use Criteria, and other specific stipulations to the management of the allotment.)

- (2) The following new grazing Term and Condition will be included on the grazing permit:

The allotments listed on this grazing permit are subject to the requirements described in 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Livestock Grazing Administration. This permit shall be modified (if necessary) to meet these requirements upon completion of a Standards and Guidelines Assessment and Determination scheduled by the Authorized Officer.

- (3) Flexibility in pasture movement may be practiced in accordance with the following guidelines:

Generally, ten days flexibility in dates would be authorized in moving between pastures, beginning five days before but not to exceed five days following the scheduled move date, with 95 percent of the herd moved by the scheduled move date. Movement from the summer pastures to FFR pastures requires complete removal of livestock from the summer pastures within five days of the final date of authorization.

- (4) Certified Actual Use reports must be recorded **by pasture**, with FFR pastures and Exchange of Use livestock clearly differentiated. Certified Actual Use Reports are due within 15 days following completion of the authorized use periods.
- (5) Livestock would be removed from pastures within three days of reaching utilization limits for herbaceous riparian vegetation (Table 6) measured at key areas on the stream.
- (6) Grazing use must be in compliance with the Operational and Resource Use Criteria (see 1 (c) above).
- (7) Livestock numbers would be coordinated between BLM and the permittees annually. Permitted use periods and AUMs by season as permitted by the decision or pasture may not be exceeded.
- (8) Use of the Little Valley Holding Facility during trailing must be coordinated with the authorized officer prior to any type of use. Use not coordinated will be considered in violation of 43 CFR 4140.1 of the Federal Grazing Regulations.
- (9) Provisions of the Idaho Sage Grouse Management Plan, the Guidelines for Management of Sage Grouse Populations, and other applicable publications will be given due consideration when managing livestock grazing activities in existing and potential sage grouse habitat.

Contingency Actions

- (1) Pastures 8, 8A, and 21, subject to fluctuations in cheatgrass production, would be subject to closure or authorization modifications when drought conditions occur. Closure of pasture 8 due to drought or range readiness conditions will still qualify as a use year and will not alter the rest period in the following year. Late spring and summer pastures would be subject to hauling water, closure, or authorization modifications when drought conditions occur, specifically in regard to lack of water.

Range Improvement Projects

Proposed Range Improvement Projects (RIPs) are described in Appendix E. Proposed general locations are shown on Map 4. These projects are considered essential to the successful implementation of the grazing management system.

Funding of RIPs would be cooperative. Contributed funding may be made in the form of materials, labor, and/or maintenance following construction. Final funding of RIPs would be determined during the Survey and Design phase of the project development and in consultation with affected permittees and interested parties.

Final project locations, specifications, materials needs, and contributions would be determined in the field during the Survey and Design phase in consultation with interested publics and the permittees. Final determinations of locations and specifications would be made by BLM prior to construction. Projects dropped from consideration during the Survey and Design phase would not be considered failure to implement the Proposed Action. Individual permittee maintenance responsibilities would be determined after the final project completion.

Projects not included in these lists may be considered at a future date under separate NEPA compliance and decisions under 4120.3-1(f).

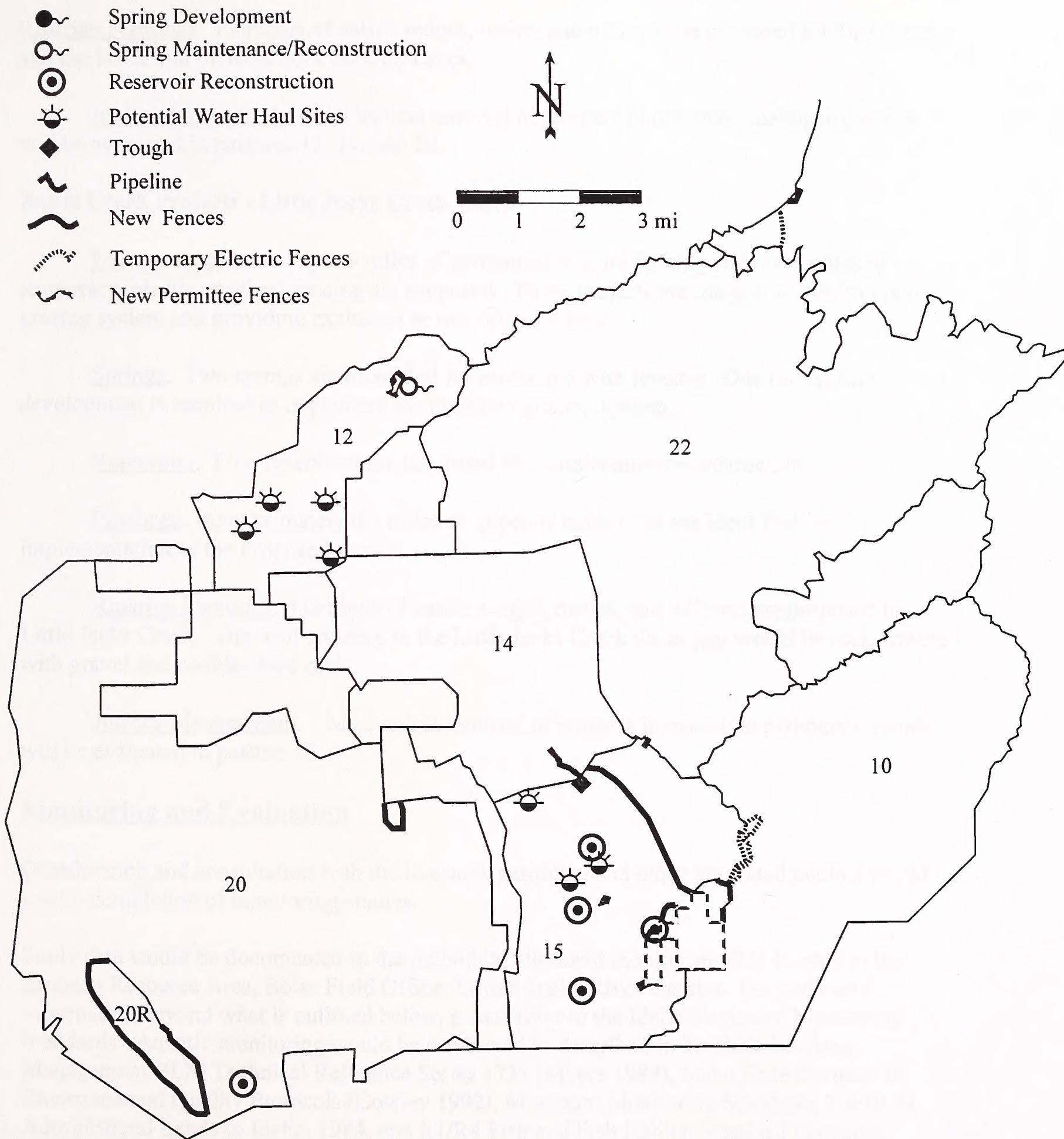
Projects are listed in Priority Order with Target dates for completion in Appendix F.

Battle Creek Projects - Battle Creek and Winter users.

Fences. Approximately 7.1 miles of permanent pasture fencing and 0.6 miles of temporary (electric or other) fencing are proposed. These projects are integral to modifying the grazing system and providing exclusion or rest opportunities.

Springs. One spring is identified for maintenance/reconstruction to implement the modified grazing system.

Reservoirs. One reservoir is identified for maintenance/reconstruction.



Map 4. Location of proposed fencing and water development projects for the Proposed Action, Battle Creek Allotment.

Riparian Plantings. Plantings of native sedges, rushes and willows are proposed for Dry Creek and the lower end of West Fork Shoofly Creek.

Juniper Management. Mechanical removal of junipers in mountain mahogany stands will be evaluated in pastures 12, 14, and 20.

Battle Creek Projects - Little Jacks Creek Users.

Fences. Approximately 4.9 miles of permanent pasture fencing and three miles of temporary (electric or other) fencing are proposed. These projects are integral to modifying the grazing system and providing exclusion or rest opportunities.

Springs. Two springs are identified for protection with fencing. One new spring development is required to implement the modified grazing system.

Reservoirs. Four reservoirs are identified for maintenance/reconstruction.

Pipelines. Approximately 0.7 miles of pipeline extensions are identified for implementation of the Proposed Action.

Riparian Plantings. Plantings of native sedges, rushes, and willows are proposed for Little Jacks Creek. The road crossing in the Little Jacks Creek water gap would be rock armored with gravel and cobble-sized rock.

Juniper Management. Mechanical removal of junipers in mountain mahogany stands will be evaluated in pasture 15.

Monitoring and Evaluation

Coordination and consultation with the livestock permittee and other interested publics would ensure completion of monitoring studies.

Study data would be documented in the individual allotment monitoring files located in the Bruneau Resource Area, Boise Field Office, Lower Snake River District. For additional information beyond what is outlined below, please refer to the Idaho Minimum Monitoring Standards. Aquatic monitoring would be conducted as described in the Riparian Area Management BLM Technical Reference Series 1737 (Myers 1989), Idaho State Division of Environmental Quality Protocols (Cowley 1992), Minimum Monitoring Standards For BLM Administered Lands In Idaho, 1984, and R1/R4 Fish and Fish Habitat Standard Inventory Procedures Handbook (USDA, Forest Service Intermountain Research Station).

Riparian key areas (KAs) would be established, or have already been established, to monitor riparian and aquatic habitat in all major perennial and intermittent streams in grazed pastures.

Upland key areas would also be established, or have already been established, in all pastures. Upland key areas are intended to serve as indicator sites that represent the typical levels of livestock grazing use occurring within the larger stratum. These sites have the capability to reflect changes occurring within the vegetative community as a result of prescribed grazing actions. All key areas are selected through on-site visits by an interdisciplinary team (ID team) in conjunction with affected parties. The representativeness of key areas may be examined by performing additional studies outside of key areas.

The median stubble height of herbaceous riparian vegetation would be used to examine livestock use levels of streambank vegetation. An analysis examining the median and average (mean) of stubble height measurements was performed in 1996. The median is a more reliable estimate of average stubble height for determining compliance with MFP standards than is the mean.

Measurements taken at key areas would be the primary factor determining the need for livestock to be removed from a pasture.

Wet meadow and spring key areas would be established. Site type will be determined based on depth to water table, depth of mottling, soil texture, soil suborder, landform, and elevation. Proper functioning condition assessments will be conducted based on hydrology, vegetation, and erosion/deposition characteristics (Prichard et al. 1998). The management goal for wet meadows and springs is to attain, where necessary, and maintain proper functioning condition.

Control areas, or exclosures, have been established near key areas or in other use areas in riparian and upland habitats to monitor and evaluate habitat changes relative to key areas. These control areas would not be grazed by livestock, although they may be used by wildlife. Additional browse exclosures are to be established in the Castle Creek Allotment to provide additional comparable areas where wildlife use of browse is also excluded. Utilization cages would be located in KAs of riparian and upland communities to assist in measurements of livestock use levels.

Use supervision is an important part of monitoring and would continue to be a priority of the Bruneau Resource Area. This function may be performed by BLM staff or volunteers, in addition to the permittees.

Climate

Precipitation. Precipitation data would be gathered from NOAA sites at Silver City and Grand View.

Actual Use

Actual use reports submitted by the permittee are important sources of information in providing data on actual herd size, dates and locations of grazing use, and general observations (wildlife, noxious weeds, etc.) of the rangeland. This information is used to calculate actual harvest levels

and is an important element when evaluating utilization measurements. Actual use reports need to be accurate, legible, and a true account of the year's grazing activities. The actual use must be reported **by pasture** in order to obtain accurate information.

Utilization

The total amount of vegetation used by livestock affects the plant's ability to maintain vigor, reproduction, soil cover, and organic material in the soil. Forage utilization guidelines for upland key areas would be 50 percent use on key forage perennial grass species, and 30 percent on browse species, in conformance with the Bruneau Management Framework Plan.

Methods employed to estimate the "amount of current year's production harvested" would include:

- (1) Key Forage Plant Method
- (2) Use Pattern Mapping

These methods use ocular estimates made from observations of how the area "looks" compared to ungrazed areas.

Upland utilization will be sampled at key areas, and at randomly selected sites known to concentrate livestock or other ungulates. Utilization data would continue to be gathered during the grazing period and after the livestock are removed from a pasture. The term "relative" utilization would indicate the amount of forage removed as compared to amounts currently produced. This term would be used early in the growing season when re-growth is likely.

Trend

Trend is used as an indicator of whether the range is moving towards or away from a specified condition or management objective. Three parameters are being used to subjectively and quantitatively measure trend on the upland study areas. Trend data would be collected by evaluating existing 3' X 3' photo plots, Nested Plot Frequency Transects, Observed Apparent Trend (OAT), and vigor studies. Photo plots and transects are located at existing key monitoring areas in each pasture. Additional plots are necessary due to the establishment of new pastures and new management. New locations would be selected in consultation with interested parties.

Vegetation cover and composition (by species), along with litter and soil cover are measured using the nested plot frequency method. Trend data collection would meet or exceed current minimum monitoring standards for BLM administered rangelands in Idaho.

More specific monitoring procedures are described in the June 1999 Battle Creek Final AIE.

Greenline Transects

Greenline transects have been established along streams within representative reaches to evaluate changes in riparian plant communities within the first continuous line of perennial vegetation above the stable low water level. These transects are permanently marked to facilitate long-term monitoring. Herbaceous and woody vegetation community types occupying a distance greater than one foot along the greenline are measured on both stream banks on transects 200 feet long.

Stubble Height

Stubble heights of herbaceous riparian vegetation are measured at key areas that are representative of stream segments. At least 50 plants are measured within the greenline (the first continuous line of perennial vegetation above the stable low water level) on each side of the stream for a total sample of 100 plants. Only grasses and grass-like plants are measured. Stubble heights would be measured at or near the end of the grazing period for a pasture. Additional measurements may be taken at the end of the growing season.

Stubble height of riparian vegetation growing on streambanks between bankfull stage and the stable low water level is a good measure of grazing intensity and its impacts. As stubble heights are progressively shortened by grazing, woody plant use and bank instability from trampling and shearing increases. Stubble heights needed to maintain or improve streambank conditions would differ somewhat by stream condition and season of livestock use.

Streambank and Meadow Soil Damage

Streambank damage attributable to grazing livestock will be determined by using a step-point transect along the greenline. At the predetermined interval, i.e., step, pace, or multiple steps, livestock damage on the streambank at the point of one's toe will be recorded. Livestock caused streambank damage is soil obviously displaced by the animals' feet by sinking into the streambank displacing the soil or shearing off part of the streambank. Livestock tracks without obvious soil displacement are not considered streambank damage.

Damage to meadow soils will be measured similarly using step-point transects crossing the meadow. A minimum of two transects will be used that cross the entire width of the meadow along randomly-selected compass bearings.

Woody Species Use

Utilization of woody shrub species would be measured at key areas that are representative of stream segments. Twenty twigs (of the current years growth) from 10 plants on each side of the stream would be examined to determine if they have been clipped (browsed). Utilization is equal to the number of twigs clipped divided by the total number of twigs examined. Utilization would be examined at or near the end of the grazing period for a pasture. Woody vegetation

protects riparian areas from streambank trampling, protects soils, provides cover important to fish, and has important food and cover value for wildlife. The deep-rooting of woody plants also helps mitigate soil compaction caused by livestock and other uses.

Wet Meadows and Springs

Permanent plots have been or will be established at selected wet meadows and springs. Species cover and soil characteristics will be measured. Proper functioning condition and trend will be determined.

Photographs

A series of repeatable photograph points have been established at each riparian key area and upland study area. The photographic series is taken each time the site is visited for monitoring actions. In addition, other permanent photograph points have been established outside the monitoring areas, to provide additional photographic records of visual changes occurring within the pasture or riparian area.

Supplemental Monitoring Studies

Supplemental monitoring studies may be implemented as needed to address new issues or questions that may arise during ongoing implementation of the grazing system. Existing monitoring studies or methods may be changed or modified provided that the changes or modifications would provide better data for analysis of progress toward meeting resource objectives.

Upland Wildlife Habitat Monitoring

Periodic reading of existing or new monitoring studies on mahogany groves, bighorn sheep habitats, neotropical birds, and deer/antelope range and implementation of new monitoring studies specific to other wildlife habitat issues or species would be accomplished on a case-by-case basis.

Sage Grouse Nesting Stubble Height and Cover Protocols are being developed for measuring stubble height and cover.

Sage Grouse Habitat Cover. Protocols are being developed for measuring cover. Where possible, sample sites would be located in or near key use areas.

Wet Meadow Stubble Height. Wet meadow stubble heights would be measured at identified meadows immediately after the livestock use period.

Browse Study Monitoring. Browse utilization, age, and form class would be measured at established browse study sites.

Aquatic Habitat Monitoring

Aquatic habitat monitoring would be conducted in part to determine the effectiveness of management prescriptions in improving or maintaining aquatic and riparian habitats. Aquatic habitat data collection would focus on the parameters listed in the Bruneau MFP Wildlife-Aquatic Objective 2 (USDI 1999).

Streambank Stability/Channel Stability. Streambank stability would be measured between bankfull stage and the stable low flow mark at key areas that are representative of stream segments. Both banks would be examined on a 200 foot long section of stream. Each linear foot of stream would be classified as covered stable, uncovered stable, covered unstable, or uncovered unstable. The covered or uncovered categories are based on bank areas with greater or less than 50 percent cover. A stable bank shows no evidence of breakdown, slumping, tension cracking or fracture, or being vertical and eroding. The R1/R4 Forest Service habitat inventory procedures would also be used to estimate bank and channel stability of stream reaches.

Substrate Composition. Composition of the size of the stream substrate would be measured using a Wolman pebble count. A total of 100 substrate particles are measured on transects placed across the channel from bankfull width to bankfull width. The percentage of particles in a particular size category is then calculated. The percentage of fines in the stream is determined from the percentage of substrate particles of sand size and smaller. Surface fines would be ocularly estimated at tail outs of pools and in low gradient riffles to estimate the percent fines in areas used for spawning by redband trout.

Percent Stream Shading. A solar pathfinder would be used to estimate the percent shading at key areas that are representative of stream segments. Stream shading provided by riparian vegetation and topographic features would be measured at 10 sites on a 200 foot long transect. The stream shading for the 10 samples would be averaged to estimate the stream shading for that stream reach.

Fish Cover. The amount of stream channel providing cover for adult fish would be measured at key areas representative of a stream segment. Cover would be measured at 10 transects across the stream within a 200 foot long stream section. The individual transect values would be averaged to estimate the amount of fish cover at that site. Adult fish cover is provided by deep pools, stable undercut banks, woody debris, boulders, velocity breaks, and overhanging vegetation (within 1 foot of the stream surface).

Water Quality. Water quality (water temperature and fecal coliform bacteria levels) of streams would be monitored periodically to determine progress toward supporting beneficial uses. Water temperatures would be monitored using maximum temperature-registering thermometers and automatic-recording thermographs. Temperature and bacteria levels would be compared to State of Idaho standards.

DESCRIPTION OF ALTERNATIVE 1, NO CHANGE

Under this alternative, livestock management of the Battle Creek Allotment would remain as described in the 1998 grazing permits. Areas currently ungrazed by livestock within and near the C.J. Strike Wildlife Management Area would remain unallocated with the area's primary use designated for wildlife. These areas are proposed to remain part of the Battle Creek Allotment and management will focus on improving range condition and wildlife habitat. While the four-inch stubble height term and condition would remain on the grazing permits under this alternative, the means to achieve this condition would require additional coordination and consultation and are unknown at this time. It is assumed for this alternative that no new fences would be constructed to help meet the four-inch stubble height condition for those riparian areas that were protected by temporary structures. In the Environmental Impacts section of this EA, the No Change Alternative is separated into Alternative 1A (Battle Creek, Winter users) and Alternative 1B (Little Jacks Creek Users), to make the alternative easier to compare to the Proposed Action and other alternatives.

Grazing Management

Permitted Use

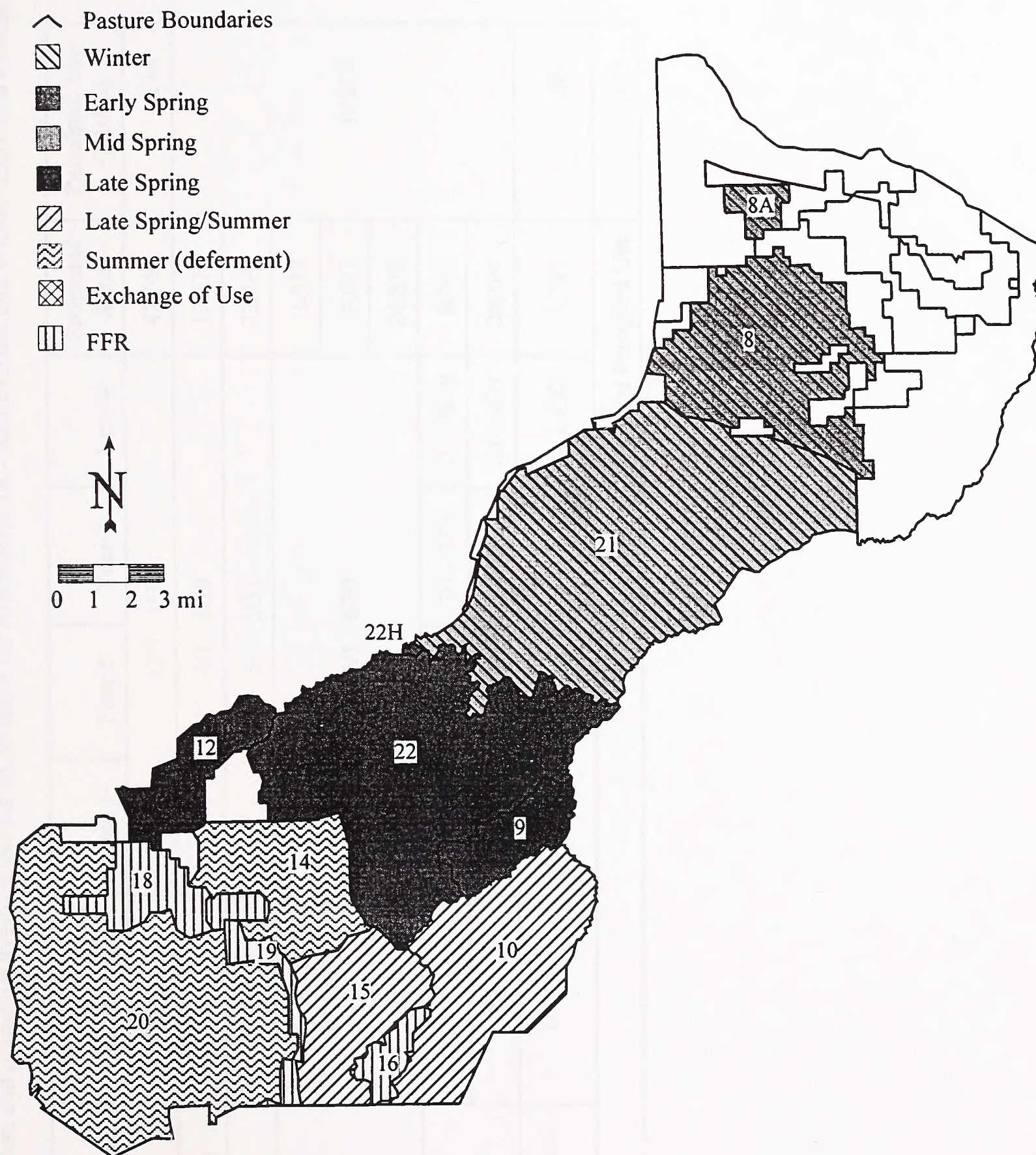
The AUMs would not change from the existing permit (Tables 8 and 9).

Grazing System for Battle Creek and Winter Users

Map 5 and Tables 8 and 9 outline the current grazing system that would continue to be permitted under this alternative. Permitted use for all spring pastures would extend from early April through June 30. Anticipated general livestock movement patterns through the pastures are described below.

Spring and Summer. Cattle would be trailed from the permittees' home ranches to pasture 8 on April 1 of each year depending on range readiness. In May, gates would be opened and cattle would either drift or be moved into pasture 21. Generally, cattle would be moved into late spring pastures (9, 12, 22) by June 15. Summer use would begin around June 20 with all livestock removed from late spring pastures by July 15. In the summer, livestock use would be deferred between pastures 14 and 20. In November, cattle would be trailed from FFR pastures down Shoofly Creek, and across the spring range to base properties or other grazing allotments.

Winter. Livestock use would occur in pastures 8, 8A, and 21 between 11/1 and 1/31. Pastures 8B and 8C (and other scattered BLM tracts) would continue to remain ungrazed.



Map 5. General grazing systems for the Battle Creek, Little Jacks Creek, and Winter users, Alternative 1, No Change, Battle Creek Allotment.

Table 8. Grazing system and permitted livestock use for BLM lands for Alternative 1A - Battle Creek and Winter users - No Change.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Winter	8, 8A, 21	11/1 - 1/31				47,646	276
Early Spring	8	4/1 - 4/30				13,633	10,895
Mid Spring	21	5/1 - 5/31				32,789	
Late Spring	9	6/1 - 6/30				3,357	
	12					4,697	
	22					24,879	
Summer	14	7/1 - 7/31	9/1 - 9/30	7/1 - 7/31	9/1 - 9/30	8,205	
	20	8/1 - 9/30	7/1 - 8/31	8/1 - 9/30	7/1 - 8/31	28,104	
Fenced Federal Range	18, 19	Used at the discretion of the permittees 7/1 - 11/30.				1,321	303
Total Permitted Use							11,474

Table 9. Grazing system and permitted livestock use for BLM lands for Alternative 1B - Little Jacks Creek Users - No Change.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Late Spring/ Summer	10	6/1 - 9/30				13,533	1,319
	15					7,484	
Fenced Federal Range	16	Used at the discretion of the permittees 7/1 - 10/15.				1,123	214
Total Permitted Use							1,533

Grazing System for Little Jacks Creek Users

Little Jacks Creek Users. Cattle would be moved from the Northwest Allotment on June 1 of each year depending on range readiness. Livestock use of pastures 10 and 15 would occur between June and September. Livestock use of pasture 16 would occur July through October 15. At the beginning of October, cattle would be trailed over a two day period from the pasture 10, back across the Northwest Allotment, to base properties near Bruneau.

Operational and Resource Use Criteria (all user groups)

Livestock Distribution. Salt and/or supplement would not be placed within 1/4 mile of springs, streams, meadows, aspen stands, playas or water developments to aid in proper distribution.

Trailing Routes. No specific trailing routes would be designated. However, the permittees would be required to coordinate trailing activities with the BLM prior to initiation.

Upland Utilization Standards. A 50 percent utilization standard on key upland species would be required.

Riparian Stubble Height and Utilization Standards. A median height of four inches for riparian vegetation at the end of the growing season at key areas along the following streams would be required as specified in the permits:

Battle Creek Users: Shoofly and East Fork Shoofly creeks.

Little Jacks Creek Users: Little Jacks and OX Prong creeks.

Grazing Administration

Permitted Use Adjustments. Permitted uses are assigned by pasture and season of use for each permittee (Tables 8 and 9).

Grazing permit. The 1998 permits would be renewed for 10 years.

New or Modified Terms and Conditions. No new terms and conditions would be added to the permit.

Contingency Actions

- (1) Additional forage temporarily available within these allotments would be issued on a supplemental, non-renewable basis.

- (2) In extreme situations such as drought or fire, temporary reductions to protect the range resources may be necessary.

Range Improvement Projects

No new range improvement projects would be developed under this alternative for the foreseeable future and therefore are not included in the alternative. However, in the future the BLM would continue to work in coordination with the permittees to implement additional range improvements on a case-by-case basis. Funding for range improvements would be subject to annual prioritizing and available personnel and funding. Existing reservoirs and range improvements would be subject to maintenance by the operators before livestock use for grazing year 2000 would be permitted.

Monitoring and Evaluation

Upland Key Use Areas

Key use areas and key species have been identified in the major pastures in the Battle Creek Allotment. The established nested frequency study sites would be read periodically.

Upland Utilization

Utilization studies would be conducted in the spring and summer pastures at the key use areas following the end of the grazing use period in each pasture

Actual Use

Actual use would be submitted by each permittee to the BLM no later than 15 days following the end of the grazing season.

Riparian Stubble Height

Riparian stubble heights would be measured at identified key areas in the fall after the growing period.

Water Quality

Water quality (water temperature and fecal coliform bacteria levels) of streams on the allotment would be monitored periodically to determine progress towards supporting beneficial uses.

Cultural Resources

Areas of potential adverse effects to historic properties have been identified during the AIE process. Periodic monitoring of these areas would establish if adverse effects are taking place.

General

Monitoring standards would be conducted in conformance with Idaho Minimum Monitoring Standards.

Informal evaluation of progress toward meeting management objectives would take place frequently. Occasions for informal evaluation would include: field discussions with livestock operators, field trips with interested publics, use supervision field trips, BLM resource specialist team meetings and formal review of allotment end-of-year reports.

DESCRIPTION OF ALTERNATIVE 2A BATTLE CREEK AND WINTER USERS

This alternative emphasizes a reliance on changes in season of use and common use in summer pastures to meet MFP objectives. It contains a rest rotation grazing system for the early spring pasture.

Grazing Management

Permitted Use

Under this alternative a total of 11,206/11,214 AUMs would be permitted in the Battle Creek area in alternate years (Table 10). Due to common use during the September use period with the Little Jacks Creek users in pastures 14 and 20, AUMs differ in alternate years.

Grazing System

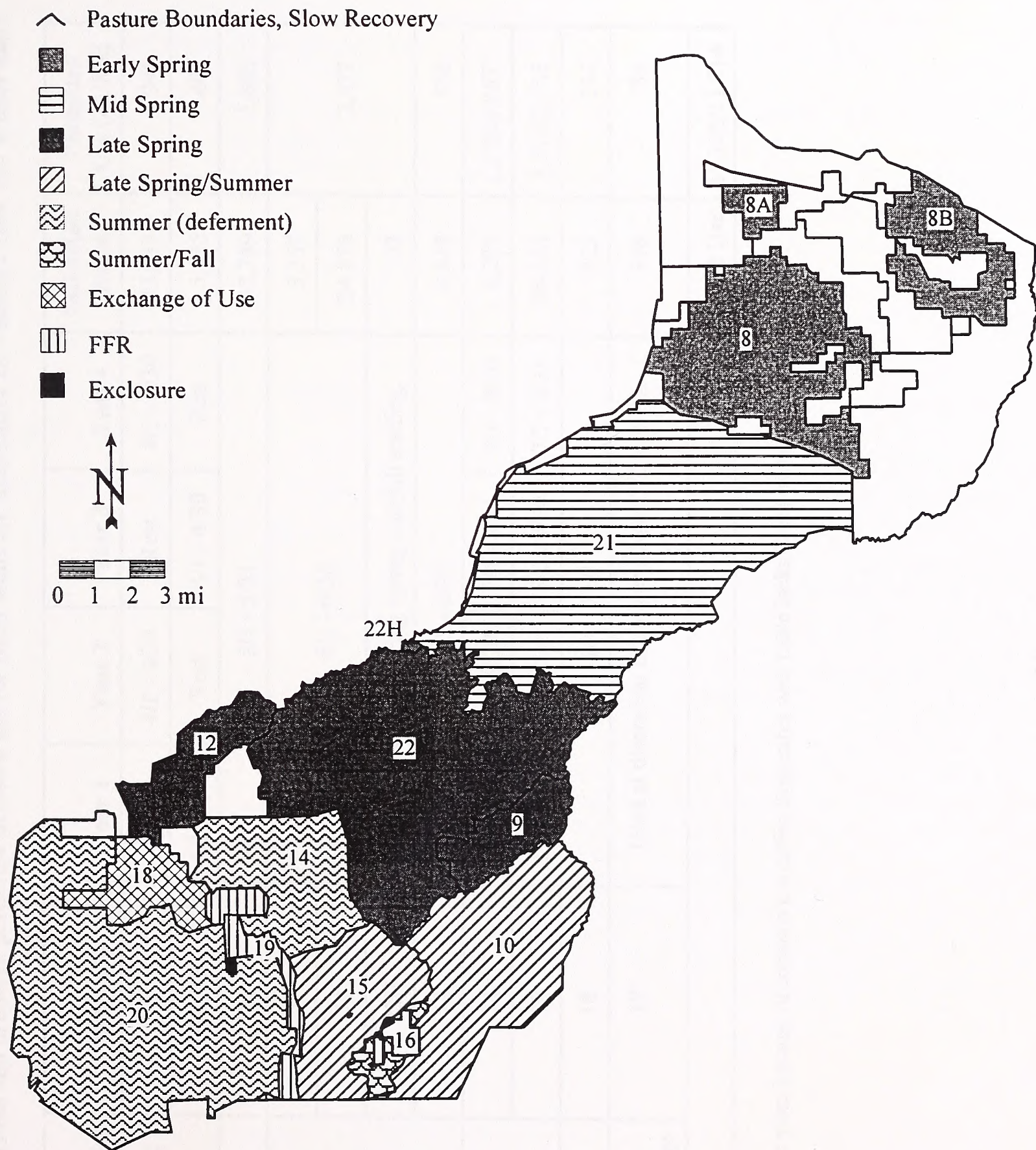
Map 6 and Table 10 outline the grazing system that would be permitted under this alternative.

Winter Grazing. No winter grazing.

Early Spring Grazing. Use during April would be alternated between pasture 8 and pastures 8A and 8B. A Biological Soil Crusts reference area would be designated in the salt desert shrub communities of pasture 8. In years when pastures 8A and 8B would be grazed water hauling would be required.

Mid Spring Grazing. Pasture 21. Use would occur every spring from 5/1 through 5/31. Livestock are required to be completely cleaned out of pasture 21 by June 15. Trailing would be allowed in spring and fall.

Late Spring Grazing. Pastures 9, 12, 22. Use would occur between June 1 and June 30. Livestock would be authorized to be herded up the East Fork of Shoofly Creek on alternate years. Use of the east fork would begin in grazing year 2001. Permittees would be responsible to ensure that a six inch stubble height on the herbaceous vegetation during the grazing period is achieved on the East Fork of Shoofly Creek. Livestock shall be herded to the east side of pasture 22, kept out of the West Fork of Shoofly Creek and Rosebriar spring until June 1. Closure of Upper East Fork Shoofly Reservoir and herding would be required on alternate years beginning in year 2001. Livestock would be moved into pasture 12 on June 1. Regular riding would be required to eliminate drift between pastures 12 and 22. Regular riding would be required to move cattle away from the pasture 14 fenceline during June grazing.



Map 6. General grazing systems for the Battle Creek, Little Jacks Creek, and Winter users, Alternative 2, Battle Creek Allotment.

Table 10. Grazing system and proposed permitted livestock use for BLM lands for Alternative 2A - Battle Creek and Winter users.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Early Spring	8	Rest	4/1 - 4/30	Rest	4/1 - 4/30	13,633	945
	8A, 8B	4/1 - 4/30	Rest	4/1 - 4/30	Rest	5,925	408
Mid Spring	21	5/1 - 5/31				32,789	1,865
Late Spring	9	6/1 - 6/30				3,357	2,477
	22					24,879	
	22H	To be used only during spring and fall trailing.				92	
Summer	12	6/1 - 6/30				4,679	566
	14	7/1 - 7/31	9/1 - 9/30	7/1 - 7/31	9/1 - 9/30	8,205	1,328/1,067 ^a
	20	8/1 - 9/30	7/1 - 8/31	8/1 - 9/30	7/1 - 8/31	28,104	3,314/3,583
EOU	18	7/1 - 9/30				923	214
Fenced Federal Range	19	Used at discretion of the permittees 7/1 - 11/30.				398	89
Total Permitted Use						11,206/11,214	

^a AUMs differ in alternate years because of common use during September with Little Jacks Creek users in pastures 14 and 20.

Summer Grazing. Pastures 14, 20. Pastures would continue to be used in a deferred system. Use in pasture 14 would occur in July or September on alternate years. Use in pasture 20 would occur in August/September or July/August on alternate years. A four-inch stubble height on herbaceous vegetation would be required at the end of the growing season.

FFRs. Pastures 18, 19. Eliminate FFR status of pasture 18 grazed by Bruneau Cattle Company cattle by establishing Exchange of Use (EOU) agreement. Livestock use would occur every year 7/1 through 9/30. Pasture 19 would continue to be authorized as an FFR pasture to be grazed 7/1 through 11/30. The FFR may be utilized at the discretion of the permittee, providing the use of the public lands portions is in conformance with the land use plan objectives and the 43 CFR 4180 Regulations-Rangeland Health Standards and Guidelines for Idaho Effective 8/12/97. Appendix C summarizes the proposed FFR pastures with the permitted AUMs per pasture.

New Enclosures. Four enclosures would be constructed to protect soil crusts and riparian vegetation (Table 11).

Table 11. Description of enclosures and reference areas for Alternative 2A - Battle Creek Users.

Name	Primary Purposes	Size (acres)
Biological Soil Crusts	Reference area designated for biological soil crusts in salt desert shrub communities.	1,735
Shoofly Cottonwood	Protect remnant cottonwood stand for redband trout and migratory songbirds.	12
Snow Creek Spring	Protect remnant aspen stand, and springhead associated riparian along Snow Creek. Snow Creek Spring would be reconstructed including a watering trough for livestock and wildlife outside of the enclosure.	26
Hutch Springs	Protect a series of springs and seeps from livestock impacts with a series of enclosures.	68
Total		1,841

Operational and Resource Use Criteria

Livestock Distribution. Salt and/or supplement would not be placed within 1/4 mile of springs, streams, meadows, aspen stands, playas, or water developments. Regular riding in all pastures is required to herd cattle off of springs, seeps, wet meadows, and creeks.

Trailing Routes. All trailing is considered supervised herding of livestock from one point to another. Livestock are prohibited from “drifting” through pastures not scheduled for use

during the trailing periods. Livestock are prohibited to “overnight” on public land unless authorized prior to the start of trailing. Any alteration of these trail routes and stipulations must be approved in advance by BLM prior to initiation. The specified trail routes and stipulations are contained in Appendix C.

Upland Utilization Standards. A 50 percent utilization standard on key upland species would be required.

Riparian Stubble Height. A median height of six inches for riparian vegetation at the end of the growing season at key areas along Shoofly and East Fork Shoofly creeks would be required. A minimum median height of four inches for riparian vegetation during the use period at key areas along Dry and Rock creeks would be required. If stubble height are not achieved at the end of the growing season, the season of use in pasture 20 would be shortened by one week.

Wet Meadow Stubble Height. A minimum median height of four inches during the use period for vegetation in wet meadow not associated with reservoirs would be required.

Grazing Administration

Grazing permit. New 10-year permits would be issued containing Terms and Conditions that all grazing use must be in accordance with the Final Decision. Grazing system and licensed use would be evaluated again at that time.

New or Modified Terms and Conditions. No new terms and conditions would be added to the permit.

Contingency Actions

- (1) Due to weather and plant growth, flexibility on move dates between pastures would be allowed. Decision on the length of time livestock can remain in a pasture past would be made jointly between BLM and permittees.
- (2) Generally, four to five day’s flexibility in dates would be allowed in moving from pasture to pasture. A similar arrangement would be allowed in moving between FFR/private pastures and BLM pastures.

Range Improvement Projects

Under this alternative, approximately 2.1 miles of permanent fence would be constructed; one spring reconstructed; one reservoir reconstructed; rock armor W. Fork of Shoofly Creek; and 5,000 acres of mechanical removal of junipers in mountain mahogany stands. Construction and maintenance responsibilities would be as described in the Proposed Action.

Fences

- (1) The cottonwood exclosure fence on Shoofly Creek would be constructed as described in the Proposed Action.
- (2) Permittees would be responsible for constructing boundary fences in pasture 8B to keep livestock off of private farmland and Highway 78.

Springs and Wet Meadows

- (1) Snow Creek Spring would be reconstructed as described in the Proposed Action.
- (2) The Hutch Springs exclosure would be constructed as described in the Proposed Action.

Reservoirs

- (1) Dry Creek Reservoir #2 would be reconstructed as described in the Proposed Action.

Water Hauling

- (1) Water tanks would need to be placed on existing roads or on other pre-determined sites within pastures 8A and 8B during years of livestock use as described in the Proposed Action.

W. Fork of Shoofly Creek

The west fork fall trail crossing in pasture 22H would be rock armored with gravel and cobble-sized rock as described in the proposed action.

Juniper Management

Mechanical removal of juniper in selected areas in pastures 12, 14, and 20 would be evaluated.

Monitoring and Evaluation

Upland Key Use Areas

Key use areas and key species have been identified in the major pastures in the Battle Creek Allotment. The established nested frequency study sites would be read periodically.

Upland Utilization

Utilization studies would be conducted in the spring and summer pastures at the key use areas following the end of the grazing use period in each pasture

Actual Use

Actual use would be submitted by each permittee to BLM no later than 15 days following the end of the grazing season.

Riparian Stubble Height

Riparian stubble heights would be measured at identified key areas in the fall after the growing period.

Water Quality

Water quality (water temperature and fecal coliform bacteria levels) of streams on the allotment would be monitored periodically to determine progress toward supporting beneficial uses.

Wet Meadows

Permanent plots have been or would be established at selected wet meadows. Species cover and soil characteristics would be measured. Proper functioning condition and trend would be determined. Regular riding of wet meadows to herd livestock away would be required to ensure stubble height standards are achieved.

Cultural Resources

Areas of potential adverse effect were identified during the AIE process. Periodic monitoring of these areas would establish if adverse effects are taking place.

General

Monitoring would be conducted in conformance with Idaho Minimum Monitoring Standards.

Informal evaluation of progress toward meeting management objectives would take place frequently. Occasions for informal evaluation would include: field discussions with livestock operators, field trips with interested publics, use supervision field trips, BLM resource specialist team meetings and formal review of allotment end-of-year reports.

DESCRIPTION OF ALTERNATIVE 2B

LITTLE JACKS CREEK USERS

This alternative emphasizes season of use adjustments and common use in summer pastures to meet the MFP objectives.

Grazing Management

Permitted Use

Under this alternative a total of 1,439/1,424 AUMs would be permitted (Table 12). Due to common use during the September use period with the Battle Creek users in pastures 14 and 20, AUMs differ in alternate years.

Grazing System

Map 6 and Table 12 outline the grazing system that would be permitted under this alternative.

Late Spring/Summer Grazing. Pastures 10 and 15 would be grazed every year in June and July by Lahtinen, Sellman, and Urquidi. Pasture 16 would be grazed by Urquidi every year from 7/1 through 10/15. The FFR status of pasture 16 would no longer exist and private land adjacent to public land would need to be fenced separately. Once private land is fenced, livestock grazing would be authorized in the north area of pasture 16 during July and in the south area of pasture 16 August 1 through October 15. Livestock grazing Little Jacks Creek within north pasture 16 would be required to achieve a four inch stubble height at the end of the growing season on herbaceous vegetation.

Summer Grazing. Pastures 14 and 20 would be authorized to allow livestock grazing under the Lahtinen and Sellman permits every year in conjunction with the deferred system described in Alternative 2A.

Exclosures. The water gap on OX Prong would be shortened and use downstream of the gap would be eliminated. Additional exclosures under this alternative are the same as under the proposed action, with the exception of Pasture 16R and the temporary Little Jacks Creek exclosure.

Operational and Resource Use Criteria

Livestock Distribution. Salt and/or supplement would not be placed within 1/4 mile of springs, streams, meadows, aspen stands, playas, or water developments. Regular riding in all pastures is required to herd cattle off of springs, seeps, wet meadows, and creeks.

Table 12. Grazing system and proposed permitted livestock use for BLM lands for Alternative 2B - Little Jacks Creek Users.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Late Spring/ Summer	10	6/1 - 7/31				13,533	685
	15					7,484	
Summer	14	-----	9/1 - 9/30	-----	9/1 - 9/30	8,205	256
	20	8/1 - 9/30	8/1 - 8/31	8/1 - 9/30	8/1 - 8/31	28,104	540/269 ^a
Summer	16	7/1 - 10/15				1,123	214
Total Permitted Use							1,439/1,424

^a AUMs differ in alternate years because of common use during September with Battle Creek users in pastures 14 and 20.

Trailing Routes. All trailing is considered supervised herding of livestock from one point to another. Livestock are prohibited from “drifting” through pastures not scheduled for use during the trailing periods. Livestock are prohibited to “overnight” on public land unless authorized prior to the start of trailing. Any alteration of these trail routes and stipulations must be approved in advance by BLM prior to initiation. The specified trail routes and stipulations are contained in Appendix C.

Upland Utilization Standards. A 50 percent utilization standard on key upland species would be required.

Riparian Stubble Height. A median height of four inches for riparian vegetation at the end of the growing season at key areas along Little Jacks and OX Prong creeks would be required. If stubble height on either creek is not achieved at the end of the growing season, the season-of-use would be shortened by one week the next grazing year.

Grazing Administration

Grazing permit. New 10-year permits would be issued. Grazing system and licensed use would be evaluated again at that time.

New or Modified Terms and Conditions. No new terms and conditions would be added to the permit.

Contingency Actions

- (1) Due to weather and plant growth, flexibility on move dates between pastures would be allowed. Decision on the length of time livestock could remain in a pasture would be made jointly between BLM and permittees.
- (2) Generally, four to five day’s flexibility in dates would be allowed in moving from spring to summer pastures. A similar arrangement would be allowed in moving between FFR/private pastures and BLM pastures.

Range Improvement Projects

Under this alternative, approximately 0.6 miles of fence would be constructed, one spring developed, and four reservoirs reconstructed.

Fences

- (1) The gap fence in OX Prong would be moved as described under the Proposed Action.
- (2) Reconstruct pasture 16 boundary fences (responsibility of permittee).

- (3) Two springhead protective exclosures would be constructed in pasture 15.
- (4) Two exclosures would be constructed to protect a wet meadow area and a 1/8 mile of Little Jacks Creek in pasture 15.

Springs

- (1) A spring located at T.10S R.2E Section 10 would be developed.

Reservoirs

- (1) Four reservoirs would be reconstructed in pasture 15.

Juniper Management

Mechanical removal of juniper in selected areas in pasture 15 would be evaluated.

Monitoring and Evaluation

Upland Key Use Areas

Key use areas and key species have been identified in the major pastures in the Battle Creek Allotment. The established nested frequency study sites would be read periodically.

Upland Utilization

Utilization studies would be conducted in the spring, summer, and winter pastures at key use areas following the end of the grazing use period in each pasture

Actual Use

Actual use would be submitted by each permittee to the BLM no later than 15 days following the end of the grazing season.

Riparian Stubble Height

Riparian stubble heights would be measured at identified key areas after the use period.

Water Quality

Water quality (water temperature and fecal coliform bacteria levels) of streams on the allotment would be monitored periodically to determine progress towards supporting beneficial uses.

Cultural Resources

Areas of potential adverse effect have been identified during the AIE process. Periodic monitoring of these areas would establish if adverse effects are taking place.

General

Monitoring would be conducted in conformance with Idaho Minimum Monitoring Standards.

Informal evaluation of progress toward meeting management objectives would take place frequently. Occasions for informal evaluation would include: field discussions with livestock operators, field trips with interested publics, use supervision field trips, BLM resource specialist team meetings and formal review of allotment end-of-year reports.

DESCRIPTION OF ALTERNATIVE 3

This alternative emphasizes the use of temporary and permanent exclusion of livestock grazing in order to better manage for other resource values such as watershed protection, special status species, water quality, cultural resources and general wildlife habitat. Season-of-use changes, rest and deferment grazing systems, and partial permitted use reductions are also incorporated. The allotment would not be used during the April and May critical growth period for many perennial plants. Pastures typically grazed during June would receive 50% permitted reductions to decrease livestock grazing during critical growth periods of other perennial grasses.

Grazing Management

Permitted Use

For Battle Creek and Winter users, pasture 8 would be rested for two grazing seasons. Permitted use for the Battle Creek and Winter areas would be 8,738/8,745 AUMs during the rest period. After grazing is resumed on all pastures identified for initial rest (pasture 8), there would be 9,683/9,690 AUMs permitted for these areas. However, permanent reductions would be required to implement the common use of summer pastures 14 and 20.

Grazing System - Battle Creek and Winter Users

Map 7 and Tables 13 and 14 outline the grazing system that would be permitted under this alternative.

Winter Grazing. Pasture 8. Pasture would be rested for two grazing seasons until fall 2001. Then, use would occur every year from 12/01 through 03/31.

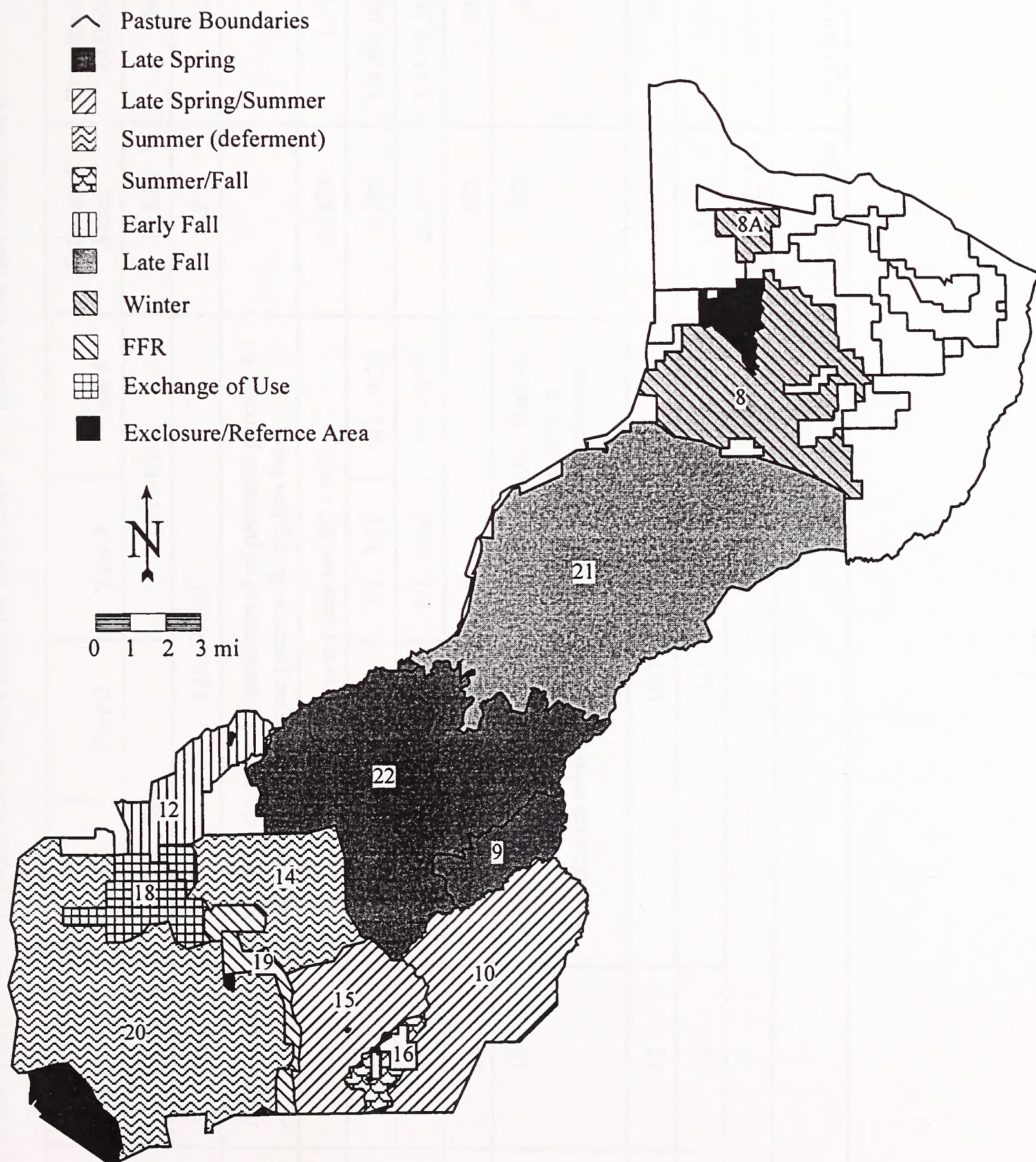
April-May. No permitted livestock grazing of public lands in the allotment.

Late Spring Grazing. Pasture 22 would be grazed from 06/01 through 06/30 with 1,240 (50% reduction) AUMs available.

Summer Grazing. Pastures 14 and 20 would be used in a deferment system with one month of use in pasture 14 and two months of use in pasture 20. These pastures would include livestock use by Lahtinen and Sellman and would be commonly used July, August and September (see Tables 13 and 14).

Early Fall Grazing. Pasture 12 would be used in October with 566 permitted AUMs.

Late Fall Grazing. Pasture 21 would be used in November with 1,865 permitted AUMs.



Map 7. General grazing systems for the Battle Creek, Little Jacks Creek, and Winter users, Alternative 3, Battle Creek Allotment.

Table 13. Grazing system and permitted livestock use for BLM lands for Alternative 3A - Battle Creek and Winter Users.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Winter	8	Rest		12/1 - 03/31		13,633	945
	8A					1,224	121
April 1 - May 31	Allotment is not grazed during the critical growth period of perennial grasses: 4/1 - 5/31. Livestock are moved to private pastures during this time.						0
Late Spring	22	50% reduction, every year use 6/1 - 6/30				24,879	1,240
Summer	14	7/1 - 7/31	9/1 - 9/30	7/1 - 7/31	9/1 - 9/30	8,205	1,329/1,067
	20	8/1 - 9/30	7/1 - 8/31	8/1 - 9/30	7/1 - 8/31	28,104	3,314/3,583
EOU	18	7/1 - 9/30				923	214
Fenced Federal Range	19	Used at discretion of the permittees 07/01 - 11/30. Most of these pastures and private pastures would be used in combination with BLM summer pastures in the deferment system.				398	89
Early Fall	12	10/1 - 10/31				4,697	566
Late Fall	21	11/1 - 11/30				32,789	1,865
Total Permitted Use Year 1-2							8,738/8,745
Total Permitted Use							9,683/9,690

Table 14. Permitted AUMs that would be available seasonally during period of initial rest for Battle Creek and Winter users (refer to Table 13 for description of grazing system).

Season of Use	Permitted AUMs Available			
	Year 1	Year 2	Year 3	Year 4
Winter	1,986	1,986	2,931	2,931
Spring	1,240			
Summer/Fall	5,423	5,430	5,423	5,430
FFR	893			
Total	8,738	8,745	9,683	9,690

EOU. Pasture 18 would be used July through September with 214 AUMs.

FFRs. Pasture 19 would be used with the deferment and rest systems for the summer/fall pastures.

Reserve Areas and Enclosures. The Biological Soil Crusts reference area (1,735 acres) and Cottonwood enclosure are the same as described in the Proposed Action. A 2,552 acre enclosure would be created on Dry Creek (Table 17).

Grazing System - Little Jacks Creek Users

For Little Jacks Creek users, there would be 1,088/1,073 AUMs permitted for the allotment.

Map 7 and Table 15 and 16 outline the grazing system that would be permitted under this alternative.

Late Spring/Summer Grazing. Pastures 10 and 15 would be grazed from June 1 through July 31 with 352 permitted AUMs.

Late Summer/Fall Grazing. The FFR status of pasture 16 would be eliminated by fencing all private land separately from public land. The permittee would be responsible for constructing all fences separating private from public lands. Grazing would not be authorized until all fencing is completed. The northern pasture, pasture 16R, would be permanently excluded from livestock grazing. The new pasture 16, the southern pasture, would be grazed between July 1 and October 15 with 196 permitted AUMs. This pasture would continue to be used under the Urquidi permit only.

Late Summer Grazing. Pastures 14 and 20 would be used in a deferment system during August and September in conjunction with other summer Battle Creek permittees.

Table 15. Grazing system and permitted livestock use for BLM lands for Alternative 3B - Little Jacks Creek Users.

Season of Use	Pasture(s)	Year 1	Year 2	Year 3	Year 4	Estimated Acres	Permitted Use (AUMs)
Late Spring/ Summer	10/15	(50% reduction in permitted AUMs to allow for critical growth periods of bunchgrasses)	6/1 - 7/31			21,017	352
Summer	16						
Late Summer	14	-----	9/1 - 9/30	-----	9/1 - 9/30	8,205	256
	20	8/1 - 9/30	8/1 - 8/31	8/1 - 9/30	8/1 - 8/31	28,104	540/269
Total Permitted Use							1,088/1,073

Table 16. Permitted AUMs that would be available seasonally during period of initial rest for Little Jacks Creek users (refer to Table 13 for description of grazing system).

Season of Use	Permitted AUMs Available			
	Year 1	Year 2	Year 3	Year 4
Winter	No Permitted Use			
Late Spring/Summer	352			
Summer/Fall	796	525	796	525
FFR	196			
Total	1,088	1,073	1,088	1,073

Exclosures. A portion of Little Jacks Creek would be temporarily excluded and pasture 16R would be permanently excluded from livestock use as described in the Proposed Action.

Operational and Resource Use Criteria

Livestock Distribution. Same as described in Proposed Action. In addition, herding would be required to keep livestock from concentrating in sensitive areas such as riparian areas, wet meadows, and mountain mahogany stands.

Trailing Routes. Same as Proposed Action.

Upland Vegetation Standards.

- (1) A 30 percent utilization standard on key upland species would be required.
- (2) A minimum of 7 inches of residual cover would remain at the end of the grazing season for areas within 2 miles of historic leks (Map).
- (3) A minimum of 60 percent of available forage would be provided for wildlife and watershed protection.

Riparian Stubble Height. Same as Proposed Action.

Other Riparian Standards.

- (1) No more than 10 percent utilization of woody riparian vegetation.
- (2) At least 90 percent stability of streambanks along perennial streams would be required.

- (3) Streambank damage attributable to livestock would not exceed 10 percent of the stream length (stream segments on public land only) on any perennial or intermittent stream on any given year.

Table 17. Description of research areas and exclosures for Alternative 3.

Pasture	Name	Primary Purposes	Size (acres)
8	Biological Soil Crusts	Study area designated for biological soil crusts in salt desert shrub communities	1,735
16R	Little Jacks Creek	Exclosure along Little Jacks Creek to exclude all livestock grazing.	150
21R	Shoofly Cottonwood	Protect remnant cottonwood stand for redband trout and migratory songbirds.	12
20R	Dry Creek	Protect wet meadow and riparian areas and associated uplands for sage grouse.	2,552
Total			4,449

Grazing Administration

Grazing permit. New 10-year permits would be issued containing Terms and Conditions that all grazing use must be in accordance with the Final Decision. Grazing system and licensed use would be evaluated again at that time.

New or Modified Terms and Conditions. Same as Proposed Action.

Contingency Actions

- (1) Drought conditions would result in immediate closure of spring pastures. Persistent drought (>2 years) could result in reducing livestock numbers in or closing summer pastures.
- (2) Failure to meet terms and conditions of the permit would result in changes to the annual authorization the following year to correct the problem. Repeated (3 times) failure could result in loss of permit.

Range Improvement Projects

Under this alternative (all permittees); approximately six miles of fence would be constructed. Construction and maintenance responsibilities would be as described in the Proposed Action.

- (1) Shoofly Cottonwood Exclosure would be fenced as described in the Proposed Action.
- (2) Snow Creek Spring would be fenced as described in the Proposed Action.
- (3) Hutch Springs would be fenced as described in the Proposed Action.
- (4) Dry Creek would be fenced as described in the Proposed Action.
- (5) One spring and two sections of Little Jacks Creek would be fenced as described in the Proposed Action.
- (6) A temporary exclosure on Little Jacks Creek and pasture 16R exclosure would be constructed as described in the Proposed Action.
- (7) The W. Fork of Shoofly Creek fall trail crossing in pasture 22H would be rock armored with gravel and cobble-sized rock as described in the Proposed Action.
- (8) Reconstruct 4 reservoirs in pasture 15 and Dry Creek Reservoir #2 in pasture 20.
- (9) Mechanical removal of juniper in mountain mahogany and bitterbrush stands.

Monitoring and Evaluation

Same as Proposed Action except that monitoring protocol would be expanded to measure additional riparian standards.

AFFECTED ENVIRONMENT

General Setting

The Battle Creek Allotment is located in southwestern Idaho (Map 1). The allotment includes 149,059 acres of BLM-administered public land, 11,990 acres of State of Idaho land, and 42,351 acres of private land. It extends approximately 37 miles: from C.J. Strike Reservoir, on the Snake River, southwest to Big Springs Creek. Elevation ranges from 2300 to over 6000 feet. The Allotment is divided into numerous pastures, as shown on Map 1. Numerous fences and livestock watering facilities have been constructed (see Map X). A total of 13,006 animal unit months (AUMs) of livestock forage are allocated on the federal lands within the allotment. The Battle Creek Allotment is comprised of two use areas (Map 1), based on a 1985 agreement between the BLM and the grazing permittees.

The Battle Creek Final AIE, distributed in June 1999, included a comprehensive description and analysis of existing livestock grazing management on the allotment. The AIE was made available to all known interested parties, and additional copies are available from the BLM Boise District Office. Rather than duplicate the descriptive information in the AIE, this EA focuses on the major issues identified in that document. Based upon the AIE analysis and public comments, some of the resources and MFP objectives discussed in the AIE are not addressed in this EA.

Affected Resources

Upland Vegetation

Range/Watershed. There are three major landforms in the allotment: lakebeds (at lower elevations in the northern portion of the allotment); mountains (from lower to upper elevations in the central portion); and plateaus (upper elevations in the southern portion).

Lakebed areas are characterized by salt desert shrub (shadscale, greasewood, Nuttall saltbush, winterfat, four-wing saltbush); sagebrush (Wyoming big, black) overstories and annual grass (cheatgrass); and remnant perennial grass (Indian ricegrass, Sandberg bluegrass, Thurber's needlegrass, squirreltail) understories. Understory condition in the lakebeds is generally poor. Although some remnant populations of perennial grasses exist, the majority of the understory in the lakebeds is dominated by cheatgrass. Shrub overstories are relatively intact, unaltered by major disturbances such as fire. Productivity ranges from 15 acres per AUM to more than 40 acres per AUM and fluctuates greatly depending on cheatgrass productivity. Nonpersistent litter (primarily cheatgrass) is the primary component of watershed cover and fluctuates with precipitation. Adequate watershed cover (more than 50 percent bare ground) is not maintained during drought conditions.

Mountain areas are characterized by sagebrush (Wyoming big, mountain big, low) overstories and perennial grass (Sandberg bluegrass, squirreltail, sand dropseed, bluebunch wheatgrass, Idaho fescue, Thurber's needlegrass) understories. Mountain areas accessible to livestock are generally in poor or fair (primarily upper elevations) condition. Areas in good condition are limited to relatively inaccessible sites on steep slopes and mountain tops, particularly within the spring pastures. Remnant populations of increaser grasses are generally present. Decreaser grass populations increase with elevation. Productivity ranges from 15 to 29 acres/AUM in poor condition areas to 8 acres/AUM in fair condition areas. Perennial grass cover is the most important component of watershed cover. Adequate watershed cover generally exists in mountain areas, especially at upper elevations.

Plateau areas are characterized by sagebrush (Wyoming big, mountain big, low) and mountain shrub (bitterbrush, curleaf mountain mahogany) overstories and perennial grass (Idaho fescue, bluebunch wheatgrass, Thurber's needlegrass, squirreltail, Sandberg bluegrass) understories. Cheatgrass is a minor component, occurring primarily in heavily used and some burned areas. Juniper trees are an increasing component in mountain mahogany stands.

Plateau areas are generally in good condition. Areas receiving consistently heavy use (adjacent to water sources) may be in poor or fair condition. Decreaser grass populations are widespread. Productivity ranges from < 6 acres/AUM in good condition areas to 7 to 29 acres/AUM in poor and fair condition areas. Perennial grasses generally provide adequate watershed cover. Percentage of bare ground is relatively low and shows less marked fluctuation with climate than lower precipitation areas in the lakebeds and mountains.

Special-Status Plants. The Battle Creek Allotment provides habitat for 10 plant species designated by BLM as "sensitive." They are American wood sage (*Teucrium canadensis* var. *occidentale*) Mulford's milkvetch (*Astragalus mulfordiae*), Snake River milkvetch (*A. purshii* var. *ophiogenes*), Trout Creek milkvetch (*A. salmonis*), Mud Flat milkvetch (*A. yoder-williamsii*), Packard's cowpie buckwheat (*Eriogonum shockleyi* var. *packardae*), matted cowpie buckwheat (*A. s.* var. *shockleyi*), white-margined wax plant (*Glyptopleura marginata*), Simpson's hedgehog cactus (*Pediocactus simpsonii* var. *robustior*), and Janish's penstemon (*Penstemon janishiae*). These 10 species occur in 21 different pastures. *The majority of them occur in salt desert shrub habitats with soils derived from lake-bed sediments. Several others occur in low and mountain big sagebrush communities.*

Of the 10 sensitive plant species, Mulford's milkvetch is of particular concern due to its limited distribution and potential conflicts with livestock grazing. Pyke (1996) determined that grazing by cattle, especially in the spring, appears to significantly reduce reproduction of Mulford's milkvetch. Some populations of Mud Flat milkvetch have been adversely affected by range improvement projects. Similar impacts will be avoided in the future by conducting adequate field exams prior to project development. Direct livestock grazing impacts on the nine other sensitive plant species are unknown; however, indirect impacts to some of these species have been observed in other allotments as a result of range developments. More detailed information on sensitive plant species in the Battle Creek Allotment is presented in the AIE.

Biological Soil Crusts. Vascular plant density, soil texture, amount of litter, and moisture availability during the cool season are the primary factors affecting distribution of biological soil crusts. Relatively sparse perennial grass populations, fine silty soils, and generally moist soils during livestock use favor biological soil crusts in the lakebeds, where cover averages about 9 percent. Competition with cheatgrass for light may limit crust cover; however, the cyclic pattern of cheatgrass allows opportunities for crust formation during drought conditions. Crust cover decreases as perennial grass or gravel cover increases. Crust cover is lowest in plateau areas, averaging 1.8 to 6.4 percent. Competition with perennial grasses, and livestock use when soils are dry, limit the formation of crusts.

Terrestrial Wildlife Habitat

There are four species of big game and four species of upland game that utilize the habitat resources in the Battle Creek Allotment. Two of the upland game species, sage grouse and mountain quail and one big game species, California big horn sheep, are considered special status species. Two additional special status species, spotted frog and kit fox, may also occur in the allotment. Numerous non-game species utilize all facets of the available habitat types.

Big Game. Pronghorn and mule deer are widely distributed across the Battle Creek Allotment. The condition of pronghorn habitat is tied to general range conditions, but pronghorn diets are heavily dependent on shrubs, particularly sagebrush. Forbs and grasses are important nutritional sources during the spring. Mule deer utilize browse species throughout the year, but grass and forb species are important components of their diet. Bitterbrush and mountain mahogany are browse species of particular importance. Browse studies indicate that utilization was generally within MFP standards, however, browse plants were often severely hedged (USDI 1999).

There is a growing elk population in the general area of the allotment. This species mainly utilizes grasses and forbs throughout the year with some use on shrubs during winter months. As the population increases, impacts from grazing elk on vegetative resources may have to be addressed in the future.

California bighorn sheep (a special status species) are widely distributed in the canyonlands and adjacent plateaus of the allotment. Grasses dominate the diets of bighorns, potentially placing them in competition for forage with livestock.

Upland Game. Sage grouse are declining throughout most of the western states, prompting the adoption of the Idaho Sage Grouse Management Plan in 1997. The plan recommends 15 to 25 percent sagebrush canopy cover in nesting and wintering areas, and seven inches of grass/forb residual, vertical cover in nesting areas. Sage grouse broods are dependent on insects and forbs. Wet meadows, riparian areas, springs, and seeps are important habitats supplying these foods to all upland game species. Many of these habitat types are currently in a degraded condition. The impacts of the Proposed Action and alternatives on wet meadows are

analyzed in the Upland Game sections of this EA. Springs and seeps are analyzed under Riparian/Aquatic Habitat Impacts sections.

Mountain quail were once abundant and widespread in western Idaho. Over the last 40 years, populations have declined and now occupy a remnant of their former range. This species utilizes both riparian habitat and the uplands adjacent to riparian areas. Both forks of Shoofly Creek were identified as mountain quail habitat in the Bruneau MFP, which requires implementation of intensive livestock management or construction of protective fencing to improve riparian habitat conditions.

Non-game Species. The effects of the different alternatives on habitats of non-game species (including habitats for several special status animals) are analyzed for groups of species that are either primarily dependent on upland or riparian habitats. For example, the impacts on habitats known to support such species as bats, some rodents, and neotropical migrant birds are analyzed under riparian habitats, because many of these species are primarily dependent on riparian habitats. Impacts to the habitat of species such as the western ground snakes, Mojave black-collared lizards, and loggerhead shrikes are considered under upland habitat impacts.

Riparian habitats in summer use pastures are generally in fair condition meeting most of the habitat requirements of many riparian dependent species. Riparian habitats in much of the Shoofly Creek drainage are in fair condition, while Dry Creek is in poor condition due to continued hot season use.

Spotted frogs have declined in four of their five genetically distinguishable populations in northwestern North America. In the Battle Creek Allotment, the species is found in slow moving streams, oxbows, pools, and ponds at elevations above 4500 feet. The majority of spotted frogs were found in Rock Creek and Little Jacks Creek.

The distribution of kit foxes is closely associated with semi-arid and desert regions of western North America, with Idaho being the northern limit of its range. Shadecreek habitat south of the Snake River was identified as potential kit fox habitat in the MFP. In recent years, kit fox sightings have been reported in the northern portion of the Battle Creek Allotment near C. J. Strike Reservoir.

Riparian/Aquatic Habitat

Streams. About thirty miles of stream in three major drainages (Battle, Little Jacks, and Shoofly creeks) are located in the Battle Creek allotment. The majority of the riparian/aquatic habitat of these streams is in good condition (USDI 1999). Habitat conditions of individual streams are described below.

OX Prong Creek

OX Prong Creek is 1.6 miles long and is a first order tributary stream to Little Jacks Creek. The headwater springs of OX Prong are actually the primary source of perennial stream flows in the Little Jacks Creek drainage. OX Prong Creek is moderately confined by side valley slopes with gradients of 2-4% (B channel type; Rosgen 1994). Stream substrates are composed primarily of cobble-sized rocks. Streamside vegetation is dominated by Kentucky bluegrass (*Poa pratensis*), baltic rush (*Juncus balticus*), and sword leaf rush (*J. ensefolius*). Remnant willow (*Salix* sp.) plants are widely scattered along the upper portion of the stream and become more common downstream. Riparian/aquatic habitat condition is rated as poor (USDI 1999). Unvegetated/unstable banks on 25% of the stream are contributing fine sediment to downstream segments of Little Jacks Creek.

Moderately steep side valley slopes allow cattle access to the stream. Before 1998, cattle in Pasture 15 congregated on OX Prong Creek during the summer (July through September) grazing period, resulting in heavy utilization of streamside vegetation. Median stubble heights of herbaceous vegetation adjacent to the stream ranged from 1-2.5 inches at the end of the growing season during 1995-97 (USDI 1999). In 1998, livestock were actively herded away from the creek and the median stubble height was 6 inches. The upper 0.2-0.3 miles of OX Prong Creek are located on private land and is fenced into three segments to provide water for livestock grazing in pastures 14, 15, and 22. The stream segment fenced to allow livestock access from pasture 15 extends about 0.1 mile onto federal land. These watering sites are heavily impacted by cattle trampling and trailing adjacent to the creek.

Little Jacks Creek

Over 19 miles of Little Jacks Creek is located in the Battle Creek allotment. The headwaters of Little Jacks Creek are located predominantly on private land in Pasture 16. Stream flows in upper Little Jacks Creek are intermittent and the duration of flow in the summer is dependent on winter snowpack levels. The upper 1.7 miles of Little Jacks Creek is located in a low gradient valley in pasture 16. Channels have gradients of 1-1.5%, with alternating riffles and scour pools on meander bends (C channel type, Rosgen 1994). The headwater segment of Little Jacks Creek in pasture 16 was probably originally a meandering stream channel (E channel type; Rosgen 1994). This segment is slightly incised, but the stream still has access to the original floodplain level of the meadows. Approximately 2.3 miles of the stream is located in Pastures 10 and 15. Stream channels in Pasture 10/15 have gradients of 2-4% and are moderately confined by side slopes, and have cobble-dominated substrates (B channel type, Rosgen 1994).

Streamside vegetation of the upper 1.1 miles of Little Jacks Creek in Pastures 10 and 15 is dominated by baltic rush, Nevada sedge (*Carex nevadensis*), and Kentucky bluegrass. Remnant willows and quaking aspens (*Populus tremuloides*) are present. Willows (*Salix lasiandra*, *S. exigua*, *S. lutea*) are common in the lower 1.2 miles of Little Jacks Creek in Pastures 10/15 that is located in a steep, highly confined canyon that prevents most livestock access. The portion of Little Jacks Creek immediately upstream of the confluence with OX Prong Creek is used

seasonally by redband trout. Cattle congregate on the accessible portions of Little Jacks Creek in Pastures 10 and 15 during July through September. Median stubble heights of herbaceous vegetation adjacent to the stream ranged from 1.5-3.0 inches at the end of the growing season during 1994-98. Riparian/aquatic habitat condition in the segment accessible to livestock is rated as poor (USDI 1999). About 25% of stream banks are unvegetated and unstable and contributing fine sediment to downstream segments of Little Jacks Creek. The canyon segment of the stream in Pastures 10/15 that is predominantly inaccessible to livestock use is in good condition (USDI 1999).

Starting about one mile downstream of the confluence with OX Prong Creek downstream to the southern boundary of pasture 21, Little Jacks Creek is inaccessible to livestock. This segment of Little Jacks Creek (11.2 miles in length) supports some of the highest quality aquatic/riparian habitat of streams draining the northern flank of the Owyhee Mountains (USDI 1999). The stream is moderately confined by valley side slopes with a narrow floodplain inside a 150-200 m deep canyon (B-channel type; Rosgen 1994). Riparian vegetation is dominated by willows (*Salix lasiolepis*, *S. lutea*, *S. lasiandra*, *S. exigua*), red-twig dogwood (*Cornus sericia*), and scouring rush (*Equisetum arvense*). In pasture 21, aquatic/riparian habitat of Little Jacks Creek was rated in the upper range of the fair category with an upward trend in condition (USDI 1999). Livestock access to the 4.5 miles of stream in pasture 21 is limited. Riparian vegetation is similar to that further upstream in Little Jacks Creek canyon.

Shoofly Creek

The majority of the Shoofly Creek drainage is located in the Battle Creek allotment, including 2.2 miles of Shoofly Creek, the entire length of the East Fork of Shoofly Creek (5.5 miles), and 1.8 miles of the West Fork of Shoofly Creek. The East and West Forks of Shoofly Creek are first order tributaries to Shoofly Creek. Channels of all three streams are located in narrow canyons, are moderately confined by valley side slopes, and have stream gradients of 2-4% (B channel types; Rosgen 1994). Stream substrates of upper portions of the East and West Forks are dominated by gravels and small-sized cobbles (USDI 1999). The lower end of the East Fork of Shoofly Creek and Shoofly Creek flow through areas with fine-grained alluvial soils and stream substrates are composed primarily of silts and sands. The upper ends of the West and East Forks of Shoofly Creek are largely inaccessible to livestock and are in good habitat condition (USDI 1999). Streamside vegetation is dominated by shrubs including willows (*S. lasiolepis*, *S. lasiandra*), red-twig dogwood, and quaking aspen. The downstream ends of East and West Forks of Shoofly Creek and Shoofly Creek in pasture 22 are in fair condition with much of the riparian vegetation composed of early seral species (USDI 1999). Prior to 1997, herbaceous riparian vegetation was often heavily utilized by livestock (stubble heights ranged from 1.0 to 5.0 inches on East Fork of Shoofly Creek; USDI 1999). Since 1995, trend in aquatic/riparian habitat condition has been upward on East Fork Shoofly and Shoofly creeks due to reduction and or elimination of livestock use.

The lowest 0.5 mile of Shoofly Creek in the allotment is located in pasture 21. About 0.3 mile of this segment supports a cottonwood (*Populus trichocarpa*)/riparian shrub plant community. This community type is infrequently found on streams draining the northern slopes of the Owyhee mountains. Observations of dead cottonwood trees on adjacent streams indicate it was formerly more common in this area. Aquatic/riparian condition of this segment was rated at fair to good (USDI 1999). Livestock accessing the stream on private land just upstream of this segment also travel downstream through the area vegetated with cottonwood trees. Cattle trails, areas of soil compaction, and invasion of upland species are noticeable in the floodplain of this segment.

Battle Creek

A short segment of Battle Creek (0.2 mile in length) at the southern boundary of pasture 20 is located on public land. This segment is located in a low gradient (< 0.1% slope) valley and largely unconfined by valley side slopes (C channel type; Rosgen 1994). Streamside vegetation is dominated by sedges (*Carex nebrascensis*, *C. rostrata*), baltic rush, Kentucky bluegrass, and Geyer's willow (*Salix geyeriana*). Stream substrates are dominated by silts. This segment is fenced to provide water to livestock grazing in pasture 20. Aquatic/riparian habitat condition of this segment improved from poor to fair during 1980 to 1998.

Dry Creek

About 3 miles of Dry Creek is located on public lands in pasture 20. The stream is a first order tributary to Battle Creek and stream flows are intermittent to perennial depending on winter snowpack levels. The stream flows through a low gradient valley with fine-grained alluvial soils. Streamside vegetation is dominated by baltic rush, Nevada sedge, sword leaf rush, and Kentucky bluegrass. Much of Dry Creek in pasture 20 was probably originally a meandering stream channel (E channel type; Rosgen 1994) through a meadow plant community. The upper portion of the segment is slightly incised, but the stream still has access to the original floodplain level of the meadows. The lower one-half portion of Dry Creek in pasture 20 is down cut 3-4 feet into a F channel type (Rosgen 1994) with considerable amounts of unvegetated stream bank. Cattle congregate on the stream during July and August. Median stubble heights of herbaceous vegetation in meadows adjacent to the stream ranged from 1-12 inches at the end of the growing season during 1997-98 (USDI 1999). The downstream 2.2 miles of Dry Creek in pasture 20 were rated as functioning at risk with an upward trend in condition (USDI 1999). Streambanks and floodplains in these segments were not adequately vegetated with riparian plant species to stabilize them against the cutting action of high stream flows. The upstream most 0.6 mile of Dry Creek in pasture 20 was rated in proper functioning condition.

Springs and Seeps. About 20 springs and seeps are located on public lands in the Battle Creek Allotment. Most of the springs are located in late spring, late spring/summer, and summer pastures. Riparian vegetation maintained by the spring flows provides important habitat for upland game birds, mule deer, and non-game. Many springs have surface flows for a portion of the year that provide water for wildlife and livestock. Riparian vegetation at springs is typically

dominated by woody shrubs and trees including willows (*Salix lutea*, *S. lasiandra*), currants (*Ribes* spp.), choke cherry (*Prunus virginiana*), and quaking aspen (*Populus tremuloides*). A herbaceous understory of Kentucky bluegrass, rushes (*Juncus* spp.), or sedges (*Carex* spp.) is also usually present. Herbaceous vegetation dominated the riparian area at a few springs. Surface flows at springs typically continue for short distances and do not contribute flows to intermittent or perennial stream drainages.

Field inventories showed many of the riparian areas at springs and seeps have extensive areas of trampled herbaceous vegetation or bare ground due to heavy levels of livestock use. No springs on the allotment are fenced to exclude livestock use, but seven spring areas received little or no use because of limited access to livestock.

Redband Trout. Redband trout (*Oncorhynchus mykiss gairdneri*) are a State of Idaho species of special concern and Idaho BLM sensitive species. This subspecies of rainbow trout is native to drainages in the Snake, Bruneau, and Owyhee River basins in southwestern Idaho. Populations of redband trout occupying desert streams of the western U.S. typically exhibit tolerances of extremes in water temperature and stream flow that are characteristic of those habitats (Behnke 1992). Redband trout inhabit the following streams on the allotment: West Fork Shoofly, East Fork Shoofly, Shoofly, Little Jacks, and OX Prong creeks. Portions of all of these streams are inhabited year around by trout. Redband trout spawn and rear in East Fork Shoofly, West Fork Shoofly, Shoofly, Ox Prong, and Little Jacks creeks. During years of low stream flows, trout move downstream from West Fork Shoofly and upper Little Jacks creeks to Shoofly Creek and the perennial portion of Little Jacks Creek, respectively. Little Jacks Creek supports some of the highest densities of redband trout (0.7-1.3 fish/m² of stream) (USDI 1999) of any stream in southwestern Idaho. The size of the trout population in the drainage was estimated to 88,400 fish (USDI 1999). The size of the redband trout population in Shoofly Creek drainage was estimated to be 5,600 fish. Trout density was significantly related to aquatic/riparian habitat condition and percentage of pools in the stream (USDI 1999). Redband trout are the only fish present in the Shoofly Creek drainage. Little Jacks Creek also has populations of mottled sculpin (*Cottus bairdi*), speckled dace (*Rhinichthys osculus*), bridgelip suckers (*Catostomus columbianus*), redband shiners (*Richardsonius balteatus*), and northern squawfish (*Ptychocheilus oregonensis*). Battle Creek supports populations of speckled dace.

Water Quality

Six major perennial and intermittent streams are located in the allotment. Cold water biota and salmonid spawning are the primary beneficial uses for Battle, Little Jacks, OX Prong, West Fork Shoofly, East Fork Shoofly, and Shoofly creeks. The beneficial use of cold water biota is given to waters that are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species that have optimal growing temperatures below 18°C. The use of salmonid spawning is assigned to waters that provide or could provide habitat for active self-propagating populations of salmonid fishes. Beneficial uses designated for all 8 streams in the allotment include agricultural water supply (waters suitable or intended to be made suitable for the irrigation of crops or as drinking water

for livestock) and secondary contact recreation (water that may be used for fishing, boating, wading, and other activities where ingestion of raw water is not probable).

Battle Creek is the only stream on the allotment designated by the State of Idaho as a Water Quality Limited Segment (WQLS). In 1994, BLM implemented a water quality monitoring program to evaluate the effectiveness of current livestock management on the allotment in meeting State of Idaho water quality standards for protecting existing beneficial uses. State of Idaho water quality criteria for the beneficial uses of cold water biota and secondary contact recreation were fully met for Little Jacks and OX Prong creeks during 1994-97 (USDI 1999). Fecal coliform bacteria levels increased in OX Prong and Little Jacks Creek in pastures 10 and 15 during the summer grazing period, but did not exceed state criteria for supporting secondary contact recreation. Maximum water temperatures increase quickly in OX Prong Creek downstream of headwater springs due to solar heating from low levels of stream shading (USDI 1999). Shoofly and East Fork Shoofly creeks did not meet or only partially met State of Idaho criteria for temperature (USDI 1999). Low levels of stream shading (22-41%) allowed solar heating of water to temperatures exceeding state criteria. In 1998, state criteria for fecal coliform bacteria were met in Shoofly and East Fork Shoofly creeks, but in previous years the bacteria criteria were exceeded.

Recreation

General Recreation.

The most intensively used recreational feature in the Battle Creek Allotment is a portion of the shoreline of C.J. Strike Reservoir, a 7,500-acre impoundment of the Snake and Bruneau Rivers in the extreme northern portion of the allotment. These lands serve as a staging point for aquatic recreational activities such as motorized and non-motorized boating, fishing, hunting for ducks and geese, swimming and water skiing. This portion of the allotment includes Cove Recreation Site, a popular developed BLM campground. An estimated 15,000 visitors used this facility in 1998. Those areas of the allotment north of Highway 78 are not currently grazed. To the south of Highway 78, recreational activities in the allotment are dispersed over a large area. Dominant activities include hunting (both big game and upland game), driving for pleasure and camping. The quality of the recreational experience in each of these activities is dependent on good ecological condition. For example, functional streams, healthy riparian vegetation, and good water quality translate into better fishing; good condition upland and riparian vegetation mean good forage and cover for huntable species, thus higher populations and better hunting; an abundant healthy mix of native vegetation in both riparian areas and uplands enhances scenic quality, resulting in a better recreational experience.

Currently, recreational users in the Battle Creek Allotment sporadically encounter unpleasant aesthetic conditions related to over-grazing in the form of bare, trampled or compacted ground, heavily grazed grasses and shrubs, large concentrations of fecal matter and urine, unpleasant odors, and concentrations of flies and other insects attracted by heavy livestock use. Fences built to control livestock movement restrict the freedom of movement of cross-country hikers,

mountain bikers, horseback riders, and motorcyclists. In areas of poor condition vegetation and/or water quality, recreation opportunities are degraded by the conditions described above.

Wilderness Study Areas. There are 43,600 acres of Wilderness Study Area (WSA) acreage in the Battle Creek Allotment. All of the acreage lies within the 58,040 acre Little Jacks Creek Wilderness Study Area. WSAs are managed by BLM to protect the values that made them eligible for designation as wilderness by Congress. These four values include solitude, naturalness, opportunity for a primitive and unconfined recreation experience, and the presence of special features that enhance wilderness values. In the Little Jacks Creek WSA, those special features include a herd of California bighorn sheep and redband trout found in some streams in the WSA. Projects such as fences or spring developments can only be constructed in WSAs when the function of those projects is to enhance wilderness values.

Livestock grazing in WSAs is a grandfathered use; grazing can continue in the same manner and degree as was occurring in October 1976. However grazing can effect wilderness values. Heavy concentrations of livestock use in some riparian and upland areas can adversely affect plant communities and water quality, thereby affecting the recreation experience sought by wilderness users.

Cultural Resources

Cultural resources in the Battle Creek Allotment are diverse and potentially represent evidence of approximately 10,000 years of human occupation. Known sites are physical manifestations of culture and represent the full range of human activity. Approximately six percent of the lands within the allotment have been inventoried for cultural resources and a total of 35 sites and 26 isolates have been recorded. Site types include lithic scatters, rockshelters, rock art, hunting camps and habitation sites, middens, rock alignments, can scatters, dumps, dugouts, standing remains of structures, placer mining sites, roads and trails (including a portion of the South Alternate of the Oregon National Historical Trail). The 1983 Bruneau MFP identifies the Oregon Trail and site 10-OE-2256 and associated sites as eligible for inclusion in the National Register of Historic Places.

Information regarding site distribution is incomplete for the Battle Creek Allotment. However, the existing data provides a reasonable and good faith effort to identify historic properties that may be affected by livestock use and the Battle Creek Grazing Management. Additional identification efforts will be conducted prior to implementation of site-specific range improvements. There appears to be a medium to high site density in the higher elevations of the allotment with greatest occurrence near water sources, riparian areas, and mountain slopes accessible to livestock. This evidence corresponds to the findings in the Boise District Class II Inventory (Young 1984). Site density is low in the steep mountainous areas and lower elevations with the exception of the riverine areas along the Snake River.

To determine potential effects of livestock use on cultural resources, locations of cultural sites were compared with 1990's grazing season-of-use, 1993 use-pattern mapping, and 1994-1995 stream functioning class maps and 1992-97 maximum utilization maps.

Existing Range Improvement Projects

The Battle Creek Allotment presently includes approximately 242 miles of fencing, 50.1 miles of water pipelines, 9 spring developments, and 55 reservoirs. The locations of the structural projects are shown on Map 14 of the Battle Creek Final AIE (USDI 1999).

ENVIRONMENTAL IMPACTS

Impacts of Project Development

The additional range improvement projects to be developed under the Proposed Action and each of the alternatives are identified in the previous sections of this EA. These projects are integral components of the proposed grazing systems; therefore, their most important environmental impacts are reflected in the analysis of each proposal as a whole. For example, certain exclosure or pasture fences would provide for better protection and management of the resources without completely eliminating grazing in large areas, and certain water developments would provide water sources outside riparian pastures proposed for long-term rest. The tabulation of environmental impacts presented below includes those indirect impacts in evaluating how each proposal would affect resource conditions. Also, individual projects or types of projects are mentioned in the tabulated analysis when they would have a substantial environmental effect on a particular resource.

In addition to the types of impacts mentioned above, range improvement projects could cause other more direct, usually temporary, impacts that are not specifically included in the tabulated analysis below. For example, construction of fences, pipelines, and spring developments would entail temporary ground disturbance in the construction areas. Several spring developments would have fences constructed around the perimeter of wetland/riparian areas associated with the springs, causing temporary disturbance to vegetation along the fence routes. Some spring developments would have a second trough placed immediately adjacent to the existing trough, which would result in a slightly larger area of bare ground extending around the troughs.

To avoid impacts to cultural resources and special-status species, areas of potential disturbance would be surveyed to identify any presence of these resources, and the projects would be modified, if necessary, prior to construction. Final survey and design of all projects would be accomplished in the field, and applicable BLM standards would be met. Because of the sensitivity of spring areas, the following additional precautions would be taken in developing or reconstructing springs. Ground-disturbance activities would be minimized as much as possible and for reconstruction would be limited to areas previously disturbed by the existing development. Reconstruction would continue to allocate a portion of the water supplied by the spring to non-grazing uses. Exclosures would be constructed to protect the spring head and wetland area from livestock trampling and over utilization. Developments and reconstructions would be designed to return water overflow to the fenced wetland area.

A more complete analysis of short and long term impacts of projects for the Proposed Action follows the analysis of resource impacts. Impacts of projects proposed for alternatives 2 and 3 would be similar to those for the Proposed Action; therefore, they are not discussed separately.

Analysis of Resource Impacts

The impacts of the Proposed Action and each of the alternatives on the resources of the Battle Creek Allotment are presented below in a tabulated format. The format is organized to allow the reader to easily compare the impacts of each of the proposals for each particular resource. The analyses of the alternatives is divided in this manner to make the impacts of each alternative easily comparable to the Proposed Action. A summary of the resource impacts relative to existing conditions for Battle Creek and Winter and Little Jacks Creek users is presented in Appendices G-BC and G-LJC, respectively.

RESOURCE IMPACTS / BATTLE CREEK AND WINTER USERS

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
Upland Vegetation Impacts	Upland Vegetation Impacts	Upland Vegetation Impacts	Upland Vegetation Impacts
<p><u>Range/Watershed</u> Under the Proposed Action for the Battle Creek use area, alternate year rest with a properly set stocking level (early spring) and deferment (spring/summer) grazing systems would improve vigor and productivity in many upland sites. These systems are designed to allow use outside critical growth periods or provide rest for areas receiving use during critical growth periods.</p> <p>Condition in lakebed areas would be expected to remain static over the mid term, and improve over the long term in pasture 8. Condition in early spring areas would benefit from alternate years rest in pasture 8. Long term trends of key forage grasses would be expected to improve during good precipitation years. Long term condition would not necessarily improve from poor to good, but improvements would be expected. Vigor and productivity would slightly increase lakebed areas is expected to improve with two years of initial rest and dormant season use to follow the rest period. The rate of recovery would depend on how often low cheatgrass populations and favorable growth conditions for perennial grass seedlings would coincide. Watershed cover in lakebed areas would remain static or improve with the Alternative 3 season of use change which would allow spring growth to be carried into the winter months. Lower utilization levels would increase non-persistent litter cover; however, increased cheatgrass could inhibit perennial grass establishment and increase the risk</p>	<p><u>Range/Watershed</u> Under Alternative 1 for the Battle Creek use area, upland vegetation, watershed cover, and productivity would remain static with no progress towards achieving MFP objectives and standards and guidelines. Condition in lakebeds, canyon lands, and mountain areas receiving spring use would remain static or decline over the long term, because livestock use would continue to occur primarily during the critical growth period of grasses and would provide no opportunity for rest. Recovery would be limited to areas receiving little or no use. Watershed cover would fluctuate greatly with cheatgrass productivity over the long term at lower elevations and remain static at upper elevations. Adequate cover for watershed protection would not occur during drought years in areas dominated by annuals. Productivity would remain static or decline over the long term at lower elevations, fluctuating with cheatgrass and squirreltail cycles. At upper</p>	<p><u>Range/Watershed</u> Condition in early spring areas would benefit from alternate years rest in pasture 8. Long term trends of key forage grasses would be expected to improve during good precipitation years. Long term condition would not necessarily improve from poor to good, but improvements would be expected. Vigor and productivity would slightly increase</p>	<p><u>Range/Watershed</u> Alternative 3 would provide for rest during the critical growth periods of perennial grasses. In comparison to the other alternatives, these factors would allow more rapid improvement in vigor, productivity, and watershed cover over the mid term in areas dominated by perennial grasses. Recovery of forage species in lakebed areas is expected to improve with two years of initial rest and dormant season use to follow the rest period. The rate of recovery would depend on how often low cheatgrass populations and favorable growth conditions for perennial grass seedlings would coincide. Watershed cover in lakebed areas would remain static or improve with the Alternative 3 season of use change which would allow spring growth to be carried into the winter months. Lower utilization levels would increase non-persistent litter cover; however, increased cheatgrass could inhibit perennial grass establishment and increase the risk</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>for perennial grasses. Recovery would be limited to areas with perennial grass seed sources. Competition from cheatgrass would be the primary factor restricting establishment of more desirable species. Watershed cover, primarily in the form of cheatgrass, would fluctuate with precipitation over the mid term, and stabilize and improve over the long term as perennial grasses and microbiotic crusts replace annuals. Productivity would fluctuate in the mid term with cheatgrass and squirreltail cycles. Productivity would stabilize and increase in the long term as perennial grasses replace annuals and existing plants gain vigor.</p> <p>Condition in canyonland and mountain areas would be expected to improve over the mid term. Good watershed cover would be maintained during normal precipitation years, with long-term improvement expected if perennial grasses are established in the interspaces of shrubs and other perennial grasses; however, watershed conditions may not be</p>	<p>elevations, average productivity would fluctuate mildly with climate, but would remain static over time.</p> <p>Livestock in late spring/summer pastures would continue to impact mountain mahogany recruitment and unprotected springs/wet meadows without implementation of deferment or rest from summer long grazing.</p>	<p>expected to be the same as for the proposed action for mid and late spring pastures.</p> <p>Summer pastures would be authorized to allow common use grazing of Battle Creek and Little Jacks Creek area permittees. The impacts expected under Alternative 2 would be the same as under the proposed action, with the exception of Dry Creek. Long term trend would be expected to remain static.</p>	<p>of wildfire.</p> <p>Condition would improve quickly over the mid term in mountain areas dominated by perennials and slowly over the long term in lakebed areas dominated by cheatgrass. Productivity would increase over the mid term as vigor improves; however, it would fluctuate in areas dominated by cheatgrass and/or squirreltail. Productivity would increase and then stabilize over the long term in areas where decreaser grasses replace annuals and squirreltail. Rest, proper season of use, and lower stocking and utilization levels would favor establishment of decreaser grasses where seed sources exist. Watershed cover would increase over the short term with lower utilization levels and over the long term as perennial grass cover increases.</p> <p>In plateau areas, 50% reductions in authorized livestock AUMs would result in increases in condition, productivity, and watershed cover over the areas which are grazed slight to moderate in typical years.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>maintained during periods when cheatgrass density is low. Productivity would stabilize and increase at lower elevations over the long term and increase at higher elevations over the mid term.</p> <p>Condition in plateau areas would remain static or slowly improve over the long term. These areas are generally in satisfactory condition at present. Recovery would be widespread with the exception of areas of livestock concentration (watering and salting). Watershed conditions would be expected to remain static or improve slightly over the long term, except in areas where a juniper overstory replaces perennial grass or mountain mahogany cover.</p> <p>Productivity would remain static or increase over the long term in areas where grass cover is maintained or increased. Productivity would decline over the long term in areas where juniper replaces grasses or mountain mahogany.</p>			<p>Current livestock impacts occurring along the pasture 14/22 boundary are expected to decrease slightly with less livestock present during the grazing period, but are expected to continue.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p><u>Special Status Plants</u> In winter use areas, the density and vigor of special status plants would be relatively stable over the mid term, but over the long term, they would be expected to increase. Dormant season use, periodic rest, and a shorter grazing season would enhance habitat protection for special status plants. Although known special status plant populations in summer pastures appear to be maintaining themselves, activities such as salt placement and range development projects have had an adverse impact on some populations of Mud Flat milkvetch in the past. These populations would probably benefit from a deferred rotation system which would enhance seed set and recruitment. While no broad scale improvement in special status plant populations are expected in the summer pastures over the long term, monitoring of salt placement locations and other activities that concentrate livestock should be continually monitored.</p>	<p><u>Special Status Plants</u> Compared to the proposed action, the long-term protection of special status plant habitat would be less secure under this alternative, particularly in the lower elevation spring pastures where population densities, the number of occurrences, and plant vigor are expected to remain static or decline. In the spring pastures, population densities and occurrences would be expected to decline or remain static over the long term under a no-rest grazing system. No change is expected in the summer pastures over the long term, as long as adequate field exams are conducted prior to project development and salt placement. These activities have had an adverse impact on some populations of Mud Flat milkvetch in the past.</p>	<p><u>Special Status Plants</u> In the lakebed area, the long term protection of special status plant habitat would be expected to remain static or slightly benefit from alternate years of rest in pasture 8. In the other spring pastures, special status plant population densities, vigor, and possibly number of occurrences would be expected to remain stable or slightly increase over the long term. Implementation of a rest-rotation grazing system would enhance the habitat for these species by allowing completion of their life cycle (i.e. seed production) every other year, potentially improving recruitment opportunities into the population. Stocking rates would remain near current levels which potentially could negate some of this positive effect. Special status plant responses in the summer pastures are expected to be similar to those described in the proposed action.</p>	<p><u>Special Status Plants</u> Densities, vigor, and possibly the number of occurrences of special status plants would be expected to increase over the long term with two years of initial rest and dormant season use to follow the rest period in pastures 8 and 8A. Rest and lower stocking and utilization levels would be expected to have long term benefits for special status plant populations elsewhere in this portion of the allotment. Special status plant responses in the summer pastures are expected to be similar to those described in the proposed action.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p><u>Biological Soil Crusts</u> Over the long term, biological soil crusts would be expected to increase in the lakebed areas as a result of winter grazing because crusts are less susceptible to trampling damage when soils are relatively moist. Recovery at lower elevations would primarily be limited to loamy and silty soils. Biological soil crusts are expected to remain static or slightly increase at the mid elevations and generally remain static in the mountain areas. Perennial grasses occupy many of the interspaces of these latter areas, leaving less area available for colonization by crusts. However, the role of crusts in stabilizing watersheds is less important in areas of good perennial grass cover.</p>	<p><u>Biological Soil Crusts</u> In lakebed areas receiving winter use and in plateau areas, microbiotic crusts would respond as described in the Proposed Action. Crust formation in spring use areas would remain static over the long term. Recovery would be limited to areas where cheatgrass is not abundant and continual trampling does not occur.</p>	<p><u>Biological Soil Crusts</u> Impacts would be similar to those described under the proposed action, except in pastures 8 and 8A, where recovery of the biological soil crust would be slower due to alternate year spring use. Soils are typically drier during April and consequently the biological soil crust is more susceptible to damage. Compared to the no action alternative, alternate years of spring use would yield a slight improvement in crust recovery.</p>	<p><u>Biological Soil Crusts</u> Over the mid and long term, biological soil crusts would be expected to increase with two years of initial rest and dormant season use to follow the rest period in pastures 8 and 8A. Rest and lower stocking and utilization levels would benefit biological soil crusts in the mid elevation areas, while a static trend would be expected in mountain areas dominated by perennial grasses. In general, lower utilization levels and rest-rotation grazing would lessen the damage to biological soils crusts due to hoof action.</p>
<p>Terrestrial Wildlife Habitat Impacts</p> <p>Wildlife habitat in the Battle Creek Allotment would rejuvenate under the Proposed Action. Improvement would occur in most habitats due to deferment of grazing, changes in pasture use periods, habitat</p>	<p>Terrestrial Wildlife Habitat Impacts</p> <p>Under the No Change Alternative, limited improvement would continue to occur in some upland habitats because of present livestock use patterns. Pastures 9, 12, 21, and 22 would have grazing</p>	<p>Terrestrial Wildlife Habitat Impacts</p> <p>The impacts of this alternative are similar to those of the proposed action. In most sagebrush communities, preferred conditions would be achieved benefiting local wildlife populations.</p>	<p>Terrestrial Wildlife Habitat Impacts</p> <p>Desired wildlife conditions would be attained for most sagebrush habitats thus benefiting most game and non-game species. These conditions would result from the increased emphasis to meet</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
enhancing projects, rest and exclusion. Impacts to vegetative resources may occur in pastures 9, 12, 21, and 22 where grazing would occur during critical growth periods. Local and migrant wildlife species would benefit by improvement in the quantity and quality of forage and cover. Management actions should result in rangeland health standards being met.	during the critical growing period without providing deferment or rest and would impact habitat quality. Habitat quality in Pasture 8 would continue to decline under the present grazing management. Displacement of grasses and shrubs with juniper would have widespread negative impacts over the long term on species dependent on shrub steppe communities.		rangeland health standards. Impacts associated with livestock grazing would occur at lower levels and result in the least number of local adverse impacts.
<u>Big Game</u> California bighorn sheep habitat along Shoofly Creek should show improvement in the uplands over the long term. The Shoofly Creek temporary electric fence project would help improve habitat used by sheep in the drainage and would eliminate forage competition with livestock. Direct competition or disturbance from livestock would be minimal, however, bighorn sheep habitat may be impacted in pastures 9 and 22 due to grazing occurring during the critical growth periods of perennial grasses.	<u>Big Game</u> Condition of California bighorn sheep habitat in pasture 22 would either remain static or decline under present grazing management. Pronghorn winter range would continue to slowly improve in pasture 21. Summer/transition range in late-spring pastures would show no change over the long term due to livestock grazing during the growth period without providing rest or deferment. Pronghorn and livestock would continue to be in direct competition for forage in summer range.	<u>Big Game</u> The quality of California bighorn sheep habitat on Shoofly Creek should improve with the reduction of livestock grazing in this corridor. The lack of grazing during the critical growth period would improve the vegetative resources of the upland habitat. Impacts to mule deer and antelope habitat would be similar to those stated in the proposed action. Only two spring exclosures would be implemented which would provide additional water for wildlife. Utilization of browse species should remain within present standards. Bitterbrush and	<u>Big Game</u> This alternative nearly maximizes our ability to provide for the needs of bighorn sheep in this allotment. Habitat along Shoofly Creek would show improvement in the uplands over the long term because of initial rest and avoidance of grazing during the critical growth period. Reduction of spring use would alleviate competition and enhance production of the local big horn population by improving habitat quality. However, some spatial overlap for ewes and lambs would occur with fall use in pasture 21.
Pronghorn winter range should	.		Slow improvement would occur

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
show improvement with changes in use periods. Some competition with livestock may occur in pasture 8 during severe winter weather when animals are forced to lower elevation. Spring range in pasture 21 should receive very little competition between livestock and pronghorn due to a mid-spring turnout date. Transition range in late-spring pastures would change little over the long term due to livestock grazing during critical growth periods. Summer range should improve with deferred grazing between pastures 14 and 20. The Dry Creek Riparian Pasture would reduce competition with livestock for forbs and grasses, and provide an undisturbed area for fawning.	Mule deer winter range located in spring pastures may show no change due to the lack of rest; however, due to the current low utilization levels, form class may improve over the long term. Browse utilization of bitterbrush and mountain mahogany within late spring pastures would remain within standards, but form class might not improve without rest. In abnormal moisture years, utilization of browse would exceed standards. Summer range in summer use pastures might show limited improvement under present grazing management.	mountain mahogany may exhibit higher utilization and exceed standards during abnormal moisture years. The removal of encroaching junipers in bitterbrush and mountain mahogany stands would improve recruitment and health.	over the long term in pronghorn winter range due to fall and winter grazing. With the change from spring to late fall grazing, some forage would not be available for wintering animals in pasture 21. During severe winter conditions, when animals would move to lower elevations, pronghorn and livestock would be in direct competition for winter forage in pasture 8. Pronghorn summer/transition range would show improvement over the long term due to livestock grazing after the critical growth period and lower utilization levels. With the exclusion of grazing in pasture 20R, antelope summer/fall range would have more forage available which would help to prepare animals for harsh winter weather.
Mule deer winter ranges should improve with changes in livestock use periods. Bitterbrush and mountain mahogany stands in pastures 9, 12, and 22 should have less utilization in normal moisture years due to an end of June removal date. Utilization has been within standards, but form class in some areas indicated heavy past use. Mechanical removal of junipers			Mule deer summer and winter ranges would show improvement due to the exclusion of livestock grazing during the critical growth period and lower utilization levels. Changes in pasture 12 from spring to fall grazing would reduce the amount of forage available for wintering deer. Utilization

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
encroaching into bitterbrush and mountain mahogany stands would improve plant health and continuance of the bitterbrush population. Recruitment in both bitterbrush and mountain mahogany stands should occur under this management plan.			standards for bitterbrush and mountain mahogany also may not be met in pasture 12. Utilization standards should be met in all other pastures in normal moisture years. In drier years, livestock use of browse may exceed standards.
Mule deer summer range should remain stable. Mule deer would move into their summer range and fawning areas before livestock arrive in July. In normal years, bitterbrush and mountain mahogany stands should sustain no more livestock utilization than in the past, which has been within standards. In drier years, some stands have been heavily utilized by livestock as indicated by form classes. Many of the proposed projects would augment summer range with increased water availability and undisturbed fawning areas such as the Dry Creek riparian pasture.			
<u>Upland Game</u> Improvement in sage grouse spring/summer/fall habitats would follow improvement	<u>Upland Game</u> Conditions in sage grouse spring/summer/fall habitats would parallel upland range	<u>Upland Game</u> Spring and summer habitats would improve as rangeland conditions rejuvenate.	<u>Upland Game</u> Sage grouse summer and fall habitats would improve as improvement occurs in upland

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>in upland range conditions. In normal moisture years, nesting areas in the allotment should meet the seven-inch stubble height goals recommended in the State of Idaho Sage Grouse Management Plan. However, livestock would be present during the nesting period in late spring pastures. Very little nesting occurs in pasture 21, therefore, livestock grazing would have little impact. Hens nesting in pasture 22 would already be incubating eggs by the June 1 turn-out date. As long as residual cover is adequate, impacts should be minimal. By the July turn-out date in the summer pastures, most hens would have completed nesting. In drier years, residual cover needed the following spring for nesting may not reach the stubble -height goal in summer pastures.</p> <p>Sage grouse brood rearing habitats (wet meadows) should show improvement with a four inch stubble-height standard once mesic plants have become re-established. Meadows associated with exclosures and proposed spring projects would be fenced and would</p>	<p>conditions. Nesting areas would probably meet the seven-inch grass/forb stubble height recommendation in summer pastures but not in some areas in spring pasture due to stocking levels and utilization patterns.</p> <p>Condition of wet meadow (sage grouse brood rearing) habitats would continue to decline without more intense grazing management. In crucial sage grouse wintering areas, sagebrush stands would be maintained with the current grazing management.</p>	<p>The State of Idaho's seven-inch residual cover standard for nesting habitat should be met in sagebrush dominated areas. Wet meadows would meet a four-inch stubble height during brood rearing in summer pastures, but may not meet the standard in late spring pastures.</p>	<p>range conditions. Nesting areas located throughout the allotment would meet the State of Idaho's seven-inch grass/forb stubble-height recommendation in sagebrush dominated areas. As habitat improvement occurs, birds may pioneer into areas presently not inhabited.</p> <p>Wet meadow (sage grouse brood rearing) habitats would show improvement in pastures 12 and 22 due to changes in grazing periods and reduction in authorized use. With the exclusion of grazing in pasture 20R, wet meadow habitat would improve dramatically and provide prime brood rearing habitat. Wet meadows may improve slowly in pastures 14 and 20 with a four inch stubble height standard.</p> <p>In sage grouse wintering areas, sagebrush is the crucial component and would be maintained by the proposed grazing management</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
improve due to the exclusion of livestock grazing. Riparian habitat associated with the Dry Creek Riparian Pasture would exhibit rapid improvement with rest and limited use. In sage grouse wintering areas, sagebrush would be maintained by the proposed grazing management.			
<p><u>Non-Game Species</u> Non-game species would benefit from all proposed projects and utilization standards associated with riparian and wetland habitat types. Upland habitat would be improved by grazing during non-critical growth periods, deferment of grazing, rest, and exclusion. The juniper management program would provide micro-habitat for ground dwelling non-game species, furnishing escape, nesting and thermal cover.</p> <p>Mountain quail habitat would improve due to the proposed temporary electric fence project that would protect Shoofly Creek. This would eliminate grazing for five years, allowing recovery of the</p>	<p><u>Non-Game Species</u> Riparian habitats along Shoofly Creek would continue to slowly improve due to stubble-height requirements. Song birds and other non-game utilizing this drainage would benefit over time. Mountain quail habitat would also continue to improve in this drainage. Conditions on Dry Creek would continue to decline due to lack of protection. Quality and quantity of habitat for non-game species using this area would be limited.</p> <p>Kit fox habitat in pasture 8 would continue to decline while showing a slight improvement in pasture 21. Habitat along C.J. Strike Reservoir would not be impacted under present grazing management.</p>	<p><u>Non-Game Species</u> The impacts of this alternative would be essentially the same as for the Proposed Action. The Shoofly/Cottonwood Exclosure would enhance neotropical bird habitat along Shoofly Creek. The Snow Creek Spring Exclosure would protect a remnant stand of aspen that would enhance song bird habitat.</p> <p>With the introduction of grazing into pasture 8B, song bird habitat along C. J. Strike Reservoir would be negatively impacted. The habitat components needed by local and migrant species would decline over time and degradation would increase the susceptibility for predation.</p>	<p><u>Non-Game Species</u> Improvement would occur on riparian areas benefiting species that are dependent on these habitats. Mountain quail habitat along Shoofly Creek would be enhanced by the changes in grazing periods. Spotted frog habitats would be improved and maintained over the long term due in Rock Creek due to a four-inch stubble height standard.</p> <p>Riparian habitat associated with Dry Creek in pasture 20R would improve dramatically with the exclusion of livestock grazing. Species diversity in meadow habitat would rejuvenate and song bird habitat develop over time with recruitment of willows and other shrubs into the riparian zone. See</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>riparian and upland habitats.</p> <p>Condition of spotted frog habitat on Rock Creek should remain static under this grazing management plan.</p> <p>Proposed projects such as the Shoofly Cottonwood, Hutch Springs and the Snow Creek exclosures would improve neo-tropical and native song bird habitat. These projects would provide prime nesting and escape cover for local populations.</p> <p>Kit fox habitat would improve through the protection of areas along C. J. Strike Reservoir. The May 1 turn-out date in pasture 21 should improve the habitat components in the lakebed area.</p>	<p>Spotted frog habitat along Rock Creek and Little Jacks Creek would continue to be impacted by grazing practices.</p>		<p>Riparian/Aquatic Habitat Impacts section for detailed analyses of riparian habitats.</p> <p>Quality of kit fox habitat in pastures 8 and 21 would improve under this grazing regime.</p> <p>Neo-tropical and native songbird habitat would improve over the long term. The Shoofly Cottonwood reserve and the Snow Creek Riparian Exclosure would provide prime nesting and escape cover for local populations. The continued exclusion of grazing on the C. J. Strike wildlife tracts, songbird habitat would remain stable and provide the components necessary for both local and migrant species.</p>
Riparian/Aquatic Habitat Impacts	Riparian/Aquatic Habitat Impacts	Riparian/Aquatic Habitat Impacts	Riparian/Aquatic Habitat Impacts
<p><u>Streams</u> The Proposed Action would improve riparian/aquatic habitat conditions of Shoofly, East Fork Shoofly, West Fork Shoofly, and Dry Creeks due to stream</p>	<p><u>Streams</u> With no change to existing grazing permits, riparian/aquatic habitat conditions would not improve on streams grazed season-long during the</p>	<p><u>Streams</u> Improvement of riparian/aquatic habitat on Shoofly Creek in pasture 21 and Dry Creek in pasture 20 would be slower than under the Proposed Action, but</p>	<p><u>Streams</u> The impacts of this alternative would be similar to the Proposed Action. Riparian/aquatic habitat would recover over the mid-term for perennial stream segments</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
segments being rested or excluded from grazing and through the implementation of riparian utilization standards and bank trampling standards. Some streams would be initially rested from livestock grazing to improve riparian/aquatic habitat conditions, while others would be rested on alternate years. The management implemented would depend on the existing condition and trend of aquatic/riparian habitats and physical differences among stream types and their watersheds. Riparian/aquatic habitat objectives would likely be met in the mid term for perennial streams (Shoofly, East Fork Shoofly, and West Fork Shoofly creeks). Intermittent streams (Dry Creek) would be expected to meet riparian/aquatic habitat objectives over the mid to long term. Most of Little Jacks Creek is meeting riparian/aquatic objectives. The segment of Little Jacks Creek in pasture 21 is grazed in spring and is in fair condition with an upward trend. Riparian/aquatic habitat objectives for this segment would likely be met in the mid term.	summer (Dry Creek). Streamside vegetation would continue to be over-utilized and stream banks would continue to be damaged by livestock trampling under this grazing system. Consequently, plant vigor would be poor and substantial areas of bare soil and unstable banks would be present. Riparian/aquatic conditions of streams grazed in spring (Shoofly, East Fork Shoofly, and West Fork Shoofly creeks) would continue to improve as long as livestock management/supervision continues similar to that implemented in 1995-98. Riparian/aquatic habitat objectives would likely be met over the long term. The only segment of Little Jacks Creek not meeting habitat objectives has cobble-dominated substrates and is located in a spring use pasture. Riparian/aquatic objectives for this segment of Little Jacks Creek would likely be met in the mid term.	habitat objectives would be met over the long-term. Dry Creek would not be rested from grazing, instead a minimum median stubble height of four inches for herbaceous riparian vegetation during the use period would be required. Management of and improvement in riparian/aquatic conditions of West Fork Shoofly, East Fork Shoofly, and Little Jacks creeks would be similar to the Proposed Action. Habitat objectives for these streams would be met over the mid term.	and over the mid to long term for intermittent streams (Dry Creek). This alternative differs from the Proposed Action in that Dry Creek and associated meadows would be excluded from grazing. This alternative would require less temporary fencing than the other alternatives to establish riparian pastures or to exclude cattle until MFP objectives are met. Instead of excluding cattle from the middle segment of Shoofly Creek, the season of use would be changed to fall, and bank shearing and utilization standards would be implemented.

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p><u>Springs and Seeps</u> Most springs in the Battle Creek Allotment are located in pastures that would be grazed during late spring and summer. Riparian vegetation at springs and seeps are susceptible to livestock impacts during this use period, particularly during years of low rainfall. Increased riding to herd livestock away from some springs in spring use pastures (such as Rosebriar Spring) would improve habitat conditions over the long term. An exclosure at Snow Creek spring would permanently protect the spring and associated riparian vegetation and habitat conditions are expected to improve in the short term. Most of the remaining springs and seeps are located in summer use pastures. With the continuation of a deferred grazing system and implementation of regular herding, a static to slightly upward trend in habitat conditions is expected for the majority of the springs and seeps in summer use pastures. Springs would receive occasional heavy impacts if livestock are not</p>	<p><u>Springs and Seeps</u> No improvement in condition of riparian areas at springs and seeps would be expected under the No Change Alternative due to long periods (up to 4 months) of use, continued concentrations of livestock in portions of spring-use pastures, and repeated season-long grazing during the hot season in summer pastures. Most of the springs and seeps in the allotment are unprotected from livestock impacts. Under the No Change Alternative, improvement or protection of springs and seeps would be limited to several springs where livestock are already excluded from the spring area by fencing.</p>	<p><u>Springs and Seeps</u> Similar to the Proposed Action, the condition of Rosebriar Spring would improve due to increased herding of livestock and Snow Creek spring would be fenced to exclude livestock use. Under this alternative, riparian areas of springs and seeps adjacent to Dry Creek in pasture 20 (summer use) would be expected to improve over the long term with the implementation of a minimum 4 inch stubble height (during the use period) for herbaceous riparian vegetation on Dry Creek. Hutch Springs would be fenced to exclude livestock use and would improve in condition over the short term. Livestock impacts to other springs and seeps in summer use pastures would be similar to that described in the Proposed Action (slight to heavy impacts depending on distance from areas of livestock congregations) and trend in habitat conditions is expected to be static to slightly upward with regular herding.</p>	<p><u>Springs and Seeps</u> Livestock impacts at Rosebriar Spring in pasture 22 are expected to be slightly reduced due to the 50% reduction in authorized AUMs in this spring use pasture. Riparian areas adjacent to the spring would improve over the long term. Similar to the Proposed Action, habitat conditions of Snow Creek Spring would improve in the short term due to the exclusion of livestock use. One spring adjacent to Dry Creek in pasture 20 would be excluded from livestock use and would improve in the short term. Hutch Springs would also be fenced to exclude livestock grazing as discussed in the Proposed Action, and would improve over the short term. Livestock impacts to other springs and seeps in summer use pastures would be similar to that described in the Proposed Action. Regular herding would be required to decrease livestock impacts at unprotected springs and seeps, and to ensure stubble height standards are achieved.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
regularly herded away from the springs. Springs and seeps that are located away from livestock concentrations are expected to improve in condition over the long term with regular herding. Hutch Springs would be fenced to exclude livestock use and is expected to improve in condition in the short term. One spring adjacent to Dry Creek would be included in the riparian pasture (20R) and would improve in condition over the mid term.			
<u>Redband Trout</u> The Proposed Action would improve habitat for redband trout by improving riparian/aquatic habitat on major perennial and intermittent streams on the allotment. Redband trout currently inhabit Little Jacks, Shoofly, East Fork Shoofly, and West Fork Shoofly creeks. The Proposed Action would initially rest or exclude livestock grazing from segments of Shoofly and West Fork Shoofly creeks. East Fork Shoofly Creek would only be grazed in spring in alternate years and livestock would be removed	<u>Redband Trout</u> With the livestock management implemented during 1995-98, trend in the condition of redband trout habitat in Shoofly and East Fork Shoofly creeks and much of West Fork Shoofly Creek is upward. The No Change Alternative would result in habitat objectives being met for these stream segments in the long term. Habitat conditions would likely not improve on the lowest segment of West Fork Shoofly Creek in pasture 22H without restoring the riparian plant community. Redband trout habitat in Little Jacks Creek is	<u>Redband Trout</u> Habitat conditions for redband trout would improve over the mid term in Little Jacks, East Fork Shoofly, and West Fork Shoofly creeks. Habitat improvement on the upper segment of Shoofly Creek in pasture 21 would be slower than under the Proposed action, but would meet habitat objectives over the long term.	<u>Redband Trout</u> Habitat conditions for redband trout in Shoofly, East Fork Shoofly, West Fork Shoofly, and Little Jacks Creek would improve over the mid term similar to the Proposed Action. The middle portion of Shoofly Creek would be grazed during the Fall and would recover at a slightly slower rate under this alternative compared to the Proposed Action, which would initially rest the stream from livestock use.

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
once herbaceous stubble height reaches 6 inches. Habitat objectives for redband trout would be met in the mid term.	primarily in good condition. Habitat objectives for redband trout in Little Jacks Creek in pasture 21 (spring use) would be met in the mid term.		
Water Quality Impacts	Water Quality Impacts	Water Quality Impacts	Water Quality Impacts
The management actions implemented in the Proposed Action for riparian/aquatic habitat restoration and maintenance would also address nonpoint-source pollution impacts. The time frames by which State of Idaho water quality standards for nonpoint-source pollution would be met would differ by stream and by standard. Long-term progress would be made towards meeting water temperature standards, as stream channels narrow and stream shading from Willows and other riparian shrubs and trees increases. Secondary contact recreation standards for fecal coliform bacteria would be met in the short term after eliminating yearly livestock use on streams that were not previously meeting standards.	Under the No Change Alternative, water quality of East Fork Shoofly, Shoofly, and West Fork Shoofly creeks would be improved over the long term as riparian/aquatic habitat is in an upward trend in condition on these streams. State of Idaho water quality criteria are currently met in Little Jacks Creek on the Battle Creek Allotment.	Water quality would be improved over the long term in Shoofly and Dry creeks, but the rate of improvement for these streams would be slower than under the proposed action. Improvements in water quality of the remaining streams (Little Jacks, West Fork Shoofly, East Fork Shoofly) in the allotment would be similar that of the Proposed Action.	Similar to the Proposed Action, progress would be made over the mid to long term in meeting State standards for non point-source pollution on all streams on the allotment.
Recreation Impacts	Recreation Impacts	Recreation Impacts	Recreation Impacts

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>Widespread improvements in riparian vegetation, stream function and water quality would improve the quality of the recreation experience for hunters, fishers, sightseers and campers over the mid and long term under the Proposed Action. Widespread improvements in upland vegetative condition would improve the quality of recreational uses like hunting, camping and sightseeing in the uplands, as well, but more slowly and over a much longer period of time. As higher quality recreational experiences become available, recreation use would increase. Localized recreation-related impacts would also increase over the long term, including improper sanitation, trampling of streamside vegetation, littering and proliferation of roads, ways, and trails in parts of the allotment. The addition of several miles of new fence would diminish recreational access and freedom of movement to a small extent, although some of these fences would be temporary and would be removed as conditions improved.</p>	<p>Improvements in riparian and upland vegetative conditions, water quality and stream functionality would be static in some areas, marginally upwards in others. As a result, fishing and hunting opportunities and scenic quality would improve slowly in some parts of the allotment, but these changes would be so slow that they would not be easily recognized by recreation users. Recreation use in the allotment would be likely to increase at about the same rate as regional population increases.</p>	<p>This alternative would modify the current grazing system by using a combination of rest-rotation and deferment, and would use a limited number of new and reconstructed range improvement projects to disperse livestock more thoroughly through the allotment. Improvements in upland and riparian vegetative condition, water quality, and stream function would occur slowly over the long term, as would improvements in the quality of recreational experience. Vegetative recovery would occur more quickly in fenced riparian/wet meadow exclosure areas. Because relatively few range improvements would be built compared to the Proposed Action, mobility and freedom of access for recreational users would be relatively less compromised. Gradual improvements in recreational quality, particularly hunting and fishing, would lead to greater increases in recreational use and associated, localized impacts of such increases.</p>	<p>Actions proposed for Alternative 3 would lead to the most rapid and widespread improvement in ecological conditions of any of the alternatives. Relatively rapid recovery of riparian vegetation and stream condition and function would lead to enhancement of recreational fishing, hunting, and camping experiences and consequently, over time, to sizeable increases in visitor use of the allotment, particularly in and around streams. Moderate but noticeable improvements in upland vegetation would result in increases in recreational activities like hunting, camping and sightseeing over the long term in these areas, as well.</p> <p>Localized recreation-related impacts including destabilized streambanks, improper sanitation, trampling of vegetation, excessive firewood use and littering would become more noticeable as visitor use increased. New vehicle roads, trails and ways would also develop in parts of the allotment as visitor use increased.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
Wilderness Impacts	Wilderness Impacts	Wilderness Impacts	Wilderness Impacts
<p>Modifications in the Proposed Action to grazing management and permits in the Battle Creek use area of the allotment would produce improvements in wilderness values of the Little Jacks Creek Wilderness Study Area by improving the vigor and appearance of vegetation in both the uplands and riparian areas, improving scenic quality and enhancing habitat conditions to sustain and improve both redband trout and bighorn sheep populations in the WSA.</p> <p>To achieve these improvements, the Proposed Action would construct a temporary electric fence within the WSA on Shoofly Creek. The fence would stay in place for an estimated five years, long enough to allow rapid improvements of riparian vegetation, redband habitat and scenic values, then be dismantled.</p> <p>The temporary fence would have some transitory impacts to wilderness values because, during</p>	<p>Improvements in naturalness, solitude, opportunities for a primitive and unconfined recreation experience and the status of the special features of redband trout, bighorn sheep and scenic quality would be slow to static in most areas of the allotment. Because no additional fences would be built under this alternative, no short term impacts to wilderness values would occur as a result of project construction.</p>	<p>Modifications in grazing management under Alternative 2 would result in slow improvements in the wilderness values of the Little Jacks Creek Wilderness Study Area. This alternative would produce gradual improvements in the vigor and appearance of riparian areas in the WSA over the mid to long term. Improvements to upland vegetation condition in the WSA would be slow and only noticeable over the long term. Under this alternative there would be no new range improvement projects built in the WSA.</p>	<p>Wilderness values of solitude, naturalness, opportunity for primitive and unconfined recreation experiences and special features of the Little Jacks Creek WSA would all be enhanced under Alternative 3 to a greater degree than in the other alternatives. This would be achieved by employing a variety of aggressive measures such as exclusion of livestock from several areas, decreases in stocking levels, grazing deferment and changes in season of use. These measures would improve the vigor and appearance of vegetation in both riparian and upland areas, improve scenic quality and enhance habitat conditions so as to sustain and improve both redband trout and bighorn sheep populations. Projects constructed in the WSA, benefits and impacts would be as described in the Proposed Action.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>the brief period it was in place, it could be viewed as an incongruous intrusion by people seeking naturalness, solitude and primitive and unconfined recreation experience. But, because the fence and its impact to wilderness values would be temporary, and the structure when removed would leave no noticeable surface disturbance, suitability for preservation as wilderness of the involved WSA lands would be unaffected. When the fence was removed, riparian conditions and related wilderness values such as redband trout populations would have substantially improved in Shoofly Creek. Subsequent livestock management would be designed to sustain those improvements for the long term.</p>			

Cultural Resources Impacts	Cultural Resources Impacts	Cultural Resources Impacts	Cultural Resources Impacts
<p>The Proposed Action has good potential to improve range conditions and preserve the integrity of cultural resources. The deferred grazing systems and establishment of riparian pastures</p>	<p>Alternative 1 would continue to have the potential to adversely affect cultural resources, especially in riparian zones and spring areas where cattle tend to shade-up, lounge and trample the ground,</p>	<p>Generally, this alternative would have the potential to somewhat stabilize and improve range conditions and maintain the integrity of cultural resources. Alternate year rotation, periods of</p>	<p>Alternative 3 has a high potential to improve range conditions and preserve the integrity of cultural resources. The proposed use of exclosures, reserves, resting pastures, season-of-use changes,</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
and exclosures would improve conditions for cultural resources by allowing for good recovery in vegetative cover, soil stabilization, and improved water quality. The exclusion of grazing in riparian areas would benefit the cultural resources in those areas. Additional impacts of range improvement projects including riparian plantings and maintenance on existing spring developments and reservoirs would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act.	resulting in loss of integrity to cultural sites. Cattle trailing during the spring turnout when the cattle trail across the winter range and into the spring pastures also has potential to destroy site integrity. At this time of year the ground is soft and wet, making it particularly susceptible to cattle trampling.	rest and deferred use may improve conditions by allowing vegetative recovery, soil stabilization and improved water quality to a degree which has some potential to stabilize the cultural resources. Additional impacts of range projects, including maintenance on existing spring developments and reservoirs would be addressed on a project by project basis for compliance with Section 106 of the National Historic Preservation Act.	reduction in stocking levels, maintaining a stubble height of 6" at end of growing season and deferment grazing systems would allow for optimal recovery in vegetative cover, soil stabilization, and improved water quality. Additional impacts of range improvement projects including maintenance on existing spring developments and reservoirs would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act.

RESOURCE IMPACTS / LITTLE JACKS CREEK USERS

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
Upland Vegetation Impacts	Upland Vegetation Impacts	Upland Vegetation Impacts	Upland Vegetation Impacts
<p><u>Range/Watershed</u> Under the Proposed Action for the Little Jacks Creek area, a deferment (summer) grazing system would improve vigor and productivity in many upland sites. This system is designed to provide rest for areas receiving use during critical growth periods. Condition would be expected to slowly improve over the long term. These areas are generally in satisfactory condition at present with a static trend in the uplands. Recovery would be widespread with the exception of areas of livestock concentration (watering and salting). Recovery of poor condition areas would depend on the ability of decrease grasses to colonize depleted areas. Adequate watershed cover would be maintained except in areas receiving heavy to severe use including burns and areas adjacent to water. Productivity would remain static or increase over the long term in areas where grass cover is maintained or increasing.</p>	<p><u>Range/Watershed</u> Under the No Action Alternative for the Little Jacks Creek use area, condition in plateau areas would remain static over the long term. Grazing would overlap the growth period of some perennial grasses such as bluebunch wheatgrass. Those species might decline over the long term in areas receiving moderate to heavy use. Watershed conditions would be expected to remain static in areas receiving no to moderate use or decline in areas receiving heavy to severe use over the long term. Over the long term, productivity would remain static or decline in areas where grass cover is decreasing because of over-utilization.</p>	<p><u>Range/Watershed</u> Condition in plateau areas receiving late spring (June) use would be expected to remain static over the long term. Use would generally occur during the end of the critical growth period. Concentrated use areas (heavy to severe use) may experience slightly downward trends during the long term. Condition, productivity, and watershed cover in mountain areas receiving summer (July - September) use would remain static over the long term because use occurred after the critical growth period. Recovery would be expected in wide spread areas receiving no to light use. Improvement in condition, productivity, and watershed cover in the mountain areas would be the same as the Proposed Action.</p>	<p><u>Range/Watershed</u> In plateau areas, lower stocking and utilization levels would favor establishment of decrease grasses where seed sources exist. Use would generally occur during the end of the critical growth period. Concentrated use areas (heavy to severe use) may experience slight upward trends during the long term. Condition, productivity, and watershed cover in mountain areas receiving summer (July - September) use would remain static over the long term because use occurred after the critical growth period. Recovery would be expected in wide spread areas, specially when the low stocking rate is considered, for pastures 10 and 15.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p><u>Little Jacks Research Natural Area</u> Approximately 75% of this 1,920 acre RNA lies in pasture 10 of the Little Jacks Creek User's area. For this reason, impacts of the four alternatives would be analyzed only within the Little Jacks Creek User's section of the EA. Impacts to perennial bunchgrasses would likely occur in portions of pasture 10, and potentially within the RNA, due to annual use during the critical growth period.</p> <p>Livestock numbers concentrated in a particular pasture for two months could increase livestock use at some locations within the RNA. However, with a combination of use in the uplands during June (which is typically cooler in most years) to promote better distribution, and a stocking rate well below the inventoried carrying capacity (770 permitted AUMs in comparison to 1,905 inventoried AUMs), overall livestock impacts in pasture 10 during June and July grazing would be expected to remain the same or decrease in comparison to livestock use throughout pastures 10/15 from</p>	<p><u>Little Jacks Research Natural Area</u> Under the No Action Alternative, upland vegetation in this portion of the RNA would be expected to remain in excellent condition over the long term. While the grazing use period is four months long and includes the critical growth period, the combination of no water developments near the RNA and the large size of the three pasture use area have concentrated livestock outside of this area.</p>	<p><u>Little Jacks Research Natural Area</u> Under this alternative, upland vegetation in the Little Jacks Creek user's portion of the RNA would be expected to remain in excellent condition over the long term. While grazing would occur during the critical growth period, use would be spread over a larger area (pastures 10 and 15) than under the proposed action (pasture 10 only) and the authorized AUMs would be reduced.</p>	<p><u>Little Jacks Research Natural Area</u> Under this alternative, upland vegetation in the Little Jacks Creek user's portion of the RNA would be expected to remain in excellent condition over the long term. While grazing would continue to occur during the critical growth period, the number of authorized AUMs would be less than half of what is authorized under the proposed action. Additionally, use would be spread over a larger area (pastures 10 and 15) than under the proposed action (pasture 10 only).</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
June through September. It would be expected that livestock use would increase in the RNA due to improved livestock distribution, but grazing levels would be expected to remain below BLM standards to maintain good conditions.			
<p><u>Special Status Plants</u> There are no known populations of sensitive plant species in this area, however Mud Flat milkvetch, Simpson's hedgehog cactus, and Trout Creek milkvetch occur in adjacent pastures in habitats also found in this area. If populations do exist, use would occur during the critical growing period and recruitment could be hampered. In pastures 15 and 16, grazing after August 1 would enhance seed set and recruitment into the population as compared to the present situation, in which grazing occurs annually from June 1 - September 30, the critical growth and seed production time period. Sensitive plant densities and vigor would be expected to increase over the mid term, and the number of occurrences could possibly increase</p>	<p><u>Special Status Plants</u> As stated under the proposed action, there are no known populations of sensitive plant species in this portion of the allotment. If populations are found to be present, their long-term protection would be slightly less secure than under the proposed action, with the exception of those found in pasture 10. Under existing management, populations in pasture 10 could potentially benefit from the less concentrated use in the critical growth period, in spite of the longer duration of grazing.</p>	<p><u>Special Status Plants</u> Should populations be present, impacts associated with this alternative would be more beneficial than under the proposed action. Although livestock would be present during the critical growth period, their numbers would effectively be lower because they would be distributed over two pastures rather than one. Over the long term, densities and/or vigor of special status plants could potentially be improved.</p>	<p><u>Special Status Plants</u> Should populations be present, impacts associated with this alternative would be beneficial. Although livestock would continue to be present during the critical growth period, a 50% reduction in authorized AUMs and use distributed over two pastures rather than one would result in improved vigor and recruitment capabilities of special status plants.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
over the long term.			
<p><u>Biological Soil Crusts</u> Biological soil crusts would remain static or slightly decline. Greater numbers of livestock during shorter periods may impact biological soil crusts in heavy to severe use areas. Perennial grasses occupy many of the interspaces, leaving less area available for colonization by crusts. However, the role of crusts in stabilizing watersheds is less important in areas of good perennial grass cover.</p>	<p><u>Biological Soil Crusts</u> Biological soil crusts would respond as described in the Proposed Action. Crust formation would remain static over the long term except in areas receiving heavy to severe use, where they would decline.</p>	<p><u>Biological Soil Crusts</u> Recovery under this alternative would be slightly more rapid than for the proposed action because of reduced livestock numbers and the earlier season of use. Biological soil crusts are more susceptible to damage when they are dry, such as during the summer use period.</p>	<p><u>Biological Soil Crusts</u> The recovery of biological soil crusts under this alternative would be rapid when compared to the proposed action. This would largely be due to the significantly lower number of authorized AUMs and the earlier season of use, when soil moisture is more likely to be present and the crust is less susceptible to damage. However, competition from perennial bunchgrasses and rocky or gravelly soils would be the primary factor influencing recovery in plateau areas.</p>
<p>Terrestrial Wildlife Habitat Impacts</p> <p>Under the proposed action, improvement to habitat components would occur due to proper seasons of use, habitat enhancement projects, and exclusion form grazing. These actions indicate a greater awareness to meet rangeland health standards.</p>	<p>Terrestrial Wildlife Habitat Impacts</p> <p>Little to no improvement would occur in most habitats under the no change alternative. . Displacement of grasses and shrubs by juniper encroachment would have widespread negative impacts over the long term on species dependent on shrub/steppe communities.</p>	<p>Terrestrial Wildlife Habitat Impacts</p> <p>Declines in habitat quality would occur in most upland habitats in pastures 10 and 15 because of concentrated stocking levels. No improvement would be expected in pastures 14 and 20 with increased utilization of vegetative resources. Replacement of grasses and shrubs with juniper would have</p>	<p>Terrestrial Wildlife Habitat Impacts</p> <p>Impacts associated with livestock grazing would occur at much lower levels and would result in limited adverse impacts to local wildlife habitat. The reduction of grazing during the critical growth periods for perennial plants would greatly improve the habitat components for many local wildlife species.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
	widespread negative impacts over the long term on species dependent on shrub/steppe communities.		
<u>Big Game</u> Big game habitat should improve slightly with the exclusion of livestock grazing during critical growth periods. Both mule deer and pronghorn populations would be in direct competition with livestock for forage on summer ranges. The proposed action should improve habitat components in pasture 10 with elimination of grazing after July 31. With the enlargement of pasture 15, additional grazing impacts from change in use periods should be minimized.	<u>Big Game</u> California bighorn sheep will continue to be in competition with livestock in both pastures. Bighorns are usually forced into the canyon habitats by higher temperatures in July and impacts would be slight due to the June 1 turn-out date. Pronghorn and livestock would be in direct competition for forage during summer months. Pronghorn summer range habitat would show no change over the long term due to the lack of deferred grazing.	<u>Big Game</u> Competition between California bighorn sheep and livestock would be minimal under this alternative. Pronghorn summer range should continue to improve with the exclusion of livestock grazing during critical growth periods for perennial grasses. Livestock and pronghorns would be in direct competition for forage during the summer months.	<u>Big Game</u> Some competition between bighorn sheep and livestock would occur in the plateau areas in pastures 10 and 15. The reduction of authorized AUM's would minimize the impacts to the resources. Pronghorn and livestock would be in direct competition for forage during the summer months. Pronghorn summer range should improve due to the exclusion of grazing during the critical growth periods for perennial grasses. Proposed reservoir projects in pastures 15 and 20 would provide additional water during summer months.
California bighorn sheep utilize the plateau and canyon habitats between February and July in pastures 10 and 15. In the past, moderate densities of rams utilized the plateau areas until increased temperatures and livestock use forced them into the canyons. Under the proposed action, competition with livestock would be moderate in pasture 10 and	Mule deer summer range located in pastures 10, 15, and 16 would exhibit no change with present grazing practices. Current utilization levels on bitterbrush remain within standards, but form class may not improve over the long-term. In abnormal moisture years, utilization levels may exceed current standards.	Livestock would be in direct competition with mule deer for forage on summer ranges. With higher stocking levels, utilization of bitterbrush and mountain mahogany is expected to increase and degrade this habitat component. In drier years, utilization would be much higher than present standards. Removal of junipers encroaching into stands of bitterbrush and mountain mahogany should increase productivity and recruitment. Proposed reservoir reconstruction projects would	Mule deer summer range would recover due to changes in livestock use periods. Some impacts may occur every other year to forage on mule deer winter range in pasture 14 due to livestock grazing during the month of September. In normal precipitation years, bitterbrush and mountain mahogany standards

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>eliminated in pasture 15.</p> <p>No change is expected to the shrub component in pastures 10 and 15. In drier years, impacts from livestock grazing to bitterbrush and mountain mahogany stands may be extreme and would have to be monitored more intensely. The eradication of juniper encroaching into stands of bitterbrush and mountain mahogany would improve recruitment and plant health.</p> <p>The proposed reservoir and spring development projects would provide additional water sources for local wildlife populations. The removal of encroaching juniper in bitterbrush and mountain mahogany populations would improve plant health and encourage recruitment into the stands.</p>		<p>provide additional water sources to local populations during summer months.</p>	<p>would be met, but heavier use may occur in drier years. Form class should improve in Pasture 15 under this grazing plan.</p>
<p><u>Upland Game</u> Sage grouse habitat should remain stable in pastures 10 and 15. Limited disturbance should occur to nesting hens in pasture 10 and nesting would be completed in pasture 15 by turn-out date. The</p>	<p><u>Upland Game</u> Improvement in sage grouse summer and fall habitats would parallel improvement in upland range conditions. Nesting areas located in pasture 10 may not meet the</p>	<p><u>Upland Game</u> No improvement is anticipated in sage grouse summer and fall habitats with increased stocking levels. Nesting habitat may be impacted with increased grazing and the State of Idaho's</p>	<p><u>Upland Game</u> Improvement in sage grouse spring/summer/fall habitats would follow improvement in upland range conditions. Nesting areas located in these pastures should meet the state of</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
State of Idaho's seven inch stubble height standard should be met in areas dominated by native grass and forb species. The standard would not be met in in cheatgrass dominated areas.	State of Idaho's seven-inch grass/forb stubble height recommendation because of grazing and site potential. Habitat requirements should be met in pastures 15 and 16.	seven-inch grass/forb stubble-height recommendation might not be met in pastures 14, 16, and 20. With a four -inch stubble-height requirement, wet meadows should improve slightly in pastures 10 and 15 and probably in 14 and 20 which are grazed after the critical growth period. Meadows in pasture 16 should display a slight improvement over the long term. This alternative plan should not impact sage grouse winter range.	Idaho's seven-inch stubble height standards.
The proposed spring and riparian exclosures would provide undisturbed brood rearing habitat for sage grouse. Unprotected wet meadows which also provide brood habitat should improve over the long term with a four inch stubble-height standard.	There would continue to be over utilization of wet meadow (sage grouse brood rearing) habitats in pastures 10 and 15. Pasture 16 should continue to provide acceptable brood rearing habitat over the long term. The crucial sagebrush component in sage grouse wintering areas would be maintained with the current grazing management.	Wet meadow (sage grouse brood rearing) habitats would make significant improvement in those areas that are protected by exclosures. Unfenced wet meadow habitats in pastures 10, 15 and 16 should reflect improvement with a four inch stubble-height standard.	The crucial sagebrush component in sage grouse wintering areas would be maintained by this alternative.
<u>Non-Game Species</u> Habitat for most non-game species should remain stable in both pastures. Habitat in pasture 10 should improve over time due to exclusion of livestock grazing after July 31. This should allow enough time for regrowth on plants impacted by grazing.	<u>Non-Game Species</u> Riparian habitats along Little Jacks Creek in Pasture 10 would continue to degrade, limiting the necessary habitat components for non-game species. No improvement would occur in other wetland habitats. Spotted frog habitat on Little Jacks Creek would continue to be impacted by livestock grazing. See Riparian/Aquatic Habitat Impacts section for a detailed analyses of riparian habitats.	<u>Non-Game Species</u> Riparian habitats along Little Jacks Creek used by neo-tropical and native song birds would continue to degrade without protection. No change or a slight decline would ensue in upland habitats used by non-game species. Two proposed exclosures would provide some additional protected wet meadow habitat. Spotted frog habitat on Little Jacks Creek would continue to decline without protection. See	<u>Non-Game Species</u> Widespread improvement would occur on riparian areas, benefitting species that are dependent on these habitats. Spotted frog habitat on Little Jacks Creek would be improved by temporarily and permanently excluding livestock grazing on different stream segments. Neo-tropical and native song birds would benefit from the two proposed exclosures in pasture 15. See Riparian/Aquatic Habitat

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
16R, an exclosure, would improve spotted frog habitat on Little Jacks Creek. See Riparian/Aquatic Habitat Impacts section for detailed analyses of riparian habitats.		Riparian/Aquatic Habitat Impacts section for a detailed analysis of riparian habitats.	Impacts section for a detailed analyses of riparian habitats. Non-game species associated with uplands would see widespread improvements in their habitats over the long term due to the proposed grazing management.
Riparian/Aquatic Habitat Impacts <u>Streams</u> The Proposed Action would improve riparian/aquatic habitat conditions on OX Prong Creek and upper Little Jacks Creek over the mid term by excluding livestock use or resting stream segments until land use plan objectives are met. Once the temporary exclosure fence in pasture 10 is removed, stubble-height and utilization standards would be applied to Little Jacks Creek to maintain riparian/aquatic habitats in good condition.	Riparian/Aquatic Habitat Impacts <u>Streams</u> With no change to the existing grazing permits, riparian/aquatic habitat conditions would not improve on streams grazed season long during the summer (accessible segments of Little Jacks creeks in pastures 10 and 15; public land portion of the water gap on OX Prong Creek). Streamside vegetation is over-utilized, stream banks are damaged by livestock trampling, and willow growth and recruitment is negatively impacted under this grazing system. Plant vigor is poor and substantial areas of bare soil and unstable banks are present. OX Prong Creek downstream of the water gap would improve over the mid term providing that gap fences	Riparian/Aquatic Habitat Impacts <u>Streams</u> Riparian/aquatic habitat of Little Jacks Creek would improve over the long term by changing the season of use to early summer, herding of livestock off of the stream, and requiring a four inch stubble height on riparian herbaceous vegetation at the end of the growing season. Similar to the Proposed Action, grazing use on OX Prong downstream of the water gap would be excluded and riparian/aquatic habitats would improve over the mid term. Under this alternative, the water gap on OX Prong Creek would also be shortened to include only private land.	Riparian/Aquatic Habitat Impacts <u>Streams</u> The impacts of Alternative 3 on upper Little Jacks and OX Prong Creek would be similar to those for the Proposed Action. Under these alternatives, all stream segments accessible to livestock would be excluded from grazing or rested from livestock use until they are meeting MFP objectives.

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
	<p>are maintained and herding of livestock continues similar to that implemented in 1998. The lower segment of Little Jacks Creek in pasture 16 would improve over the long term providing that residual stubble heights of 4-6 inches are left on herbaceous vegetation along the stream, similar to that observed during 1995-98.</p>		
<p><u>Springs and Seeps</u> The condition of riparian vegetation at two springs in pasture 15 would improve over the mid term due to the exclusion of livestock use. Habitat conditions of one spring located away from areas of concentrated livestock use in pasture 10 would improve slightly due to shortening the duration of grazing to two months. Conditions of Tigert and Little Tigert springs (in Pasture 10) and one other spring in pasture 15 located in an area of concentrated livestock use would improve slightly over the long term with shortening the duration of use and the implementation of herding. Permittees would be required to periodically herd livestock away from loafing areas currently present</p>	<p><u>Springs and Seeps</u> No improvement in riparian habitat conditions of springs in pastures 10 and 15 would be expected under the No Action Alternative, due to extended periods (up to four months) of use and repeated season-long grazing during the hot season.</p>	<p><u>Springs and Seeps</u> Similar to the Proposed Action, habitat conditions of two springs in pasture 15 would be improved over the mid term due to the exclusion of livestock. Impacts to riparian habitats at unprotected springs in pastures 10 and 15 would also be similar to that described in the Proposed Action.</p>	<p><u>Springs and Seeps</u> Similar to the Proposed Action, habitat conditions of 2 springs in pasture 15 would be improved over the mid term due to the exclusion of livestock. Improvement of riparian habitat at one unprotected spring located away from areas of concentrated livestock use in pasture 10 would be slightly faster than that of the Proposed Action because of the 50% reduction in livestock use and the change to early summer grazing use (June and July). Conditions of Tigert and Little Tigert springs (in pasture 10) and one other spring in pasture 15 located in an area of concentrated livestock use would improve over the long term with the implementation of herding.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
at these springs.			<p>Permittees would be required to periodically herd livestock away from loafing areas currently present at these springs. Improvement would likely be slightly faster than under the Proposed Action because of the change to early summer use and the 50% reduction in grazing use.</p>
<p><u>Redband Trout</u> The Proposed Action would improve habitat for redband trout by improving riparian/aquatic habitat of OX Prong and Little Jacks creeks. Habitat objectives are expected to be met over the mid term by resting or excluding stream segments from livestock grazing. Trout occupy OX Prong Creek year around and use Little Jacks Creek seasonally upstream of its confluence with OX Prong Creek. Livestock would only have access to OX Prong Creek on private land.</p>	<p><u>Redband Trout</u> The No Action Alternative would not improve redband trout habitat in accessible portions of Little Jacks Creek in pastures 10 and 15 and the public land portion of the water gap on OX Prong Creek. Trout may seasonally inhabit upper Little Jacks Creek in pasture 16. Provided livestock management/supervision continues similar to that implemented in 1998 on OX Prong Creek, and during 1995-98 on much of Little Jacks Creek in pasture 16, habitat conditions for redband trout would improve over the mid to long term on those segments.</p>	<p><u>Redband Trout</u> Redband trout habitat in Little Jacks Creek in portions of pastures 10 and 15 that are accessible to livestock would likely improve over the long term with the change to early summer grazing, and the use of herding, and stubble height stipulations. Trout may seasonally inhabit upper Little Jacks Creek in pasture 16. Provided four to six inch stubble heights are maintained on the lower portion of Little Jacks Creek in pasture 16, habitat conditions for redband trout would improve over the long term in that segment. Similar to the proposed action, redband trout habitat in OX Prong Creek would improve over the mid term by excluding livestock use from stream segments on public</p>	<p><u>Redband Trout</u> The impacts of Alternative 3 on upper Little Jacks and OX Prong Creek would be similar to those for the Proposed Action. Habitat objectives for redband trout would probably be met over the mid term by resting or excluding livestock grazing from public land segments.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
	land.		
Water Quality Impacts	Water Quality Impacts	Water Quality Impacts	Water Quality Impacts
<p>Fecal coliform bacteria levels in OX Prong and Little Jacks creeks increase during livestock use, but have not been documented to exceed state standards. Similarly, water temperatures increase rapidly in OX Prong Creek due to low levels of shade provided by streamside shrubs, but stream temperatures do not exceed state criteria for cold water biota. The management actions to be implemented in the Proposed Action for riparian/aquatic habitat restoration and maintenance would also improve water quality. Long-term progress would be made towards lowering water temperatures, as stream channels narrow and stream shading from willows and other riparian shrubs and trees increases. Fecal coliform bacteria levels would be reduced in the short term by resting or excluding stream segments from livestock use and by reducing the duration of use after the temporary</p>	<p>Water quality would not be improved in streams that are grazed season long during the summer (Little Jacks in pastures 10 and 15; public land portion of the water gap on OX Prong Creek). Fecal Coliform levels increased in these streams during livestock grazing, but did not exceed state criteria for secondary contact recreation. Similarly, water temperatures increased quickly in OX Prong Creek due to low levels of stream shading, but did not exceed state criteria for cold water biota. Water quality would be improved in lower OX Prong Creek and in the lower segment of Little Jacks Creek in pasture 16, with the continued implementation of changes in grazing management/supervision made during 1995-98.</p>	<p>State water quality standards are currently being met in upper Little Jacks Creek and OX Prong Creek, although fecal coliform bacteria levels increase during the livestock use period and stream temperatures in OX Prong Creek increase quickly due to low levels of stream shading. Long-term progress would be made on improving water temperature in the lower portion of OX Prong Creek and bacteria levels would improve over the short term by excluding livestock use. Reducing the duration of use on Little Jacks Creek would result in improvements in water quality over the long term.</p>	<p>Similar to the Proposed Action, this alternative would make progress over the short term in reducing fecal coliform bacteria levels and reducing water temperatures over the long term (by increasing the number of riparian shrubs providing stream shading) for both upper Little Jacks and OX Prong creeks.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
rest period.			
Recreation Impacts	Recreation Impacts	Recreation Impacts	Recreation Impacts
<p>Widespread improvements in riparian vegetation, stream function, and water quality would improve the quality of recreation experience for hunters, fishers, sightseers, and campers at a moderate rate under the Proposed Action. Widespread improvements in upland vegetative condition would improve the quality of recreation experiences like hunting, camping and sightseeing in the uplands as well, but more slowly and over a much longer period of time. As higher quality recreational experiences became available, recreation use would increase. Localized recreation-related impacts would also increase, including improper sanitation, trampling of streamside vegetation and streambank, littering and proliferation of new roads, ways and trails in parts of the allotment. The addition of several miles of new fence would compromise recreational access and freedom of</p>	<p>Improvements in riparian and upland vegetative conditions, water quality and stream functionality would be static in a few areas, slowly upwards in others. As a result, fishing and hunting opportunities and scenic quality would improve marginally in some parts of the allotment, but these changes would be so slow that they would not be easily noticed by recreational users. Recreational use in the allotment would be likely to increase at about the same rate as regional population increases.</p>	<p>This alternative's emphasis on changes in seasons of use, implementation of rest rotation grazing in early spring pastures, common use in summer pastures and limited construction of range projects, would bring some slow improvements to vegetative condition, thereby improving the quality of recreational experience in some areas of the allotment. Improvements would occur in riparian vegetation and wet meadow and stream conditions in those localized areas where exclosures are proposed. Little improvement in general ecological condition or dependent recreational experience quality could be expected in summer pastures, where grazing practices would be only slightly changed. Overall improvements in ecological condition would occur at a slightly greater rate than under the No Change Alternative. Some, moderate, localized increases in</p>	<p>This alternative's emphasis on excluding areas from livestock grazing to protect specific resources, complete rest of pastures until stream and vegetative conditions meet mandated standards, decreases in stocking levels and grazing deferment would lead to the most rapid and widespread improvements in ecological conditions of any of the alternatives. Relatively rapid recovery of riparian vegetation and stream condition and function would lead to enhancement of recreational fishing, hunting, and camping experiences and consequently, in time, to sizeable increases in visitor use of the allotment, particularly near streams. Moderate but noticeable improvements to upland vegetation would result in increases in recreational activities like hunting, camping and sightseeing over the long term in these areas, as well.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
movement, although some of the fences would be temporary and would be removed as conditions improved.		recreational use could be expected in areas responding to such grazing treatments as changes in seasons of use and exclosure fencing. The proposed exclosure fencing in this alternative would compromise recreational access and freedom of movement in some areas.	
Wilderness Impacts	Wilderness Impacts	Wilderness Impacts	Wilderness Impacts
Modifications to grazing management that would be implemented under the Proposed Action would produce improvements in the Little Jacks Wilderness Study Area to the four wilderness values of solitude, naturalness, opportunity for a primitive and unconfined recreation experience, and to special features (redband trout, bighorn sheep, and scenic quality).	Improvements in naturalness, solitude, opportunities for primitive and unconfined recreation experiences and the status of the special features of redband trout, bighorn sheep and scenic quality would be slow or static in most areas of the allotment. Because no additional fences would be constructed under this alternative, no short term impacts to wilderness values as a result of project construction would occur.	Under this alternative there would be some slow, marginal improvements to the wilderness value of naturalness as moderate changes in grazing systems improved upland and riparian vegetation conditions in a few areas. Generally, though, conditions would change little from their current state. Impacts to wilderness values from the OX Prong gap fence relocation would be as described in the Proposed Action.	Wilderness values of solitude, naturalness, opportunity for a primitive and unconfined recreation experience and special features of the Little Jacks Creek WSA would all be enhanced under Alternative 3 to a greater degree than in the other alternatives. This would be achieved by employing a variety of aggressive measures such as exclusion of livestock from several areas, decreases in stocking levels, grazing deferment and changes in season of use. These measures would improve the vigor and appearance of vegetation in both riparian and upland, improve scenic quality and enhance habitat
To achieve these improvements, the Proposed Action would construct two fences in the WSA in the Little Jacks Creek use area of the allotment. One of the fences would			

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>be a temporary electric fence that would exclude livestock from heavily-grazed portions of Little Jacks Creek to allow for improvements in riparian vegetation, redband habitat and scenic values, then dismantled. The temporary fence would have some transitory impact to wilderness values because, during the time that it was in place, it could be viewed as an incongruous intrusion by people seeking naturalness, solitude and primitive, unconfined recreation experiences. But, because the fence and its impacts to wilderness values would be temporary, and the structure, when removed, would leave no noticeable surface disturbance, suitability for preservation as wilderness of the involved WSA lands would be unimpaired. When the fence was removed, riparian conditions and related wilderness values such as redband trout populations would have substantially improved. Subsequent livestock management would be designed to sustain those improvements for the long term.</p> <p>The other fence would be</p>			<p>conditions so as to sustain and improve redband trout and bighorn sheep populations. Projects constructed in the WSA and their impacts would be as described in the Proposed Action.</p>

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>permanent and approximately one-tenth of a mile in length. This new fence would be a relocation of an old gap fence and would protect an additional stretch of OX Prong Creek from livestock use, resulting in improvement of redband habitat and ecological condition. The original gap fence would be removed.</p> <p>The proposed permanent boundary fence separating pastures 10 and 15 outside the WSA would improve riparian conditions within the WSA in pasture 10 by preventing cattle from drifting back to Little Jacks Creek after July 31. At the same time, there would be intensification in grazing use of WSA portions of pasture 10 from June 1 through July 31, since during that period livestock would be prevented from drifting into Pasture 15 as they normally have. For the period July through September 30 the authorized 770 AUMs for those pastures would concentrate outside the WSA in pasture 15. Based on use pattern mapping of the two pastures, about 60% of those AUMs currently concentrate within</p>			

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
<p>the WSA along Little Jacks Creek in pasture 10 during that period. The fence would subject Pasture 10 to about 40% more livestock in June and July, but would eliminate the pressure of livestock for the remaining two months of the grazing season.</p> <p>With the construction of the fence, allocation of grazing use would be virtually split between the two pastures; two months in pasture 10, then two months in pasture 15. This represents a small decrease in number of livestock using pasture 10 during the year.</p> <p>The Wilderness Act allows grazing in the same manner and degree that it was occurring on October 21, 1976. The net effect of the fence would probably not significantly change the manner and degree of use in the WSA. It would likely provide a moderate improvement in vegetative condition in the WSA, but because it intensifies grazing use during a critical growth period for plants, it would require close scrutiny to assure that there was not a significant negative change in any</p>			

Proposed Action	Alternative 1 - No Change	Alternative 2	Alternative 3
wilderness value.			
Cultural Resources Impacts	Cultural Resources Impacts	Cultural Resources Impacts	Cultural Resources Impacts
<p>The Proposed Action has a high potential to improve range conditions and preserve the integrity of cultural resources. The proposed grazing exclusion and the rest-rotation, alternate graze/rest, and deferred-rotation grazing systems would allow for rapid recovery in vegetative cover, soil stabilization, and improved water quality. Additional impacts of the range improvement projects would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act.</p>	<p>The No Change Alternative would continue to have the potential to adversely affect cultural resources, especially in riparian zones and spring areas where cattle tend to concentrate and trample the ground, resulting in the continued loss of integrity of cultural resource sites. During spring turnout cattle trailing across the winter range and into the spring pastures also has potential to destroy site integrity. At this time of year the ground is soft and wet, making it particularly susceptible to cattle trampling.</p>	<p>This alternative would have moderate potential to stabilize and improve range conditions and maintain the integrity of cultural resources. Additional impacts of range projects, including seeding, fences, spring developments, pipelines, and prescribed burns would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act. This would include maintenance on existing spring developments which have not been addressed for compliance in the past.</p>	<p>This alternative has good potential to improve range conditions and preserve the integrity of cultural resources. The proposed use of exclosures, rest pastures, season-of-use changes, reduction in stocking levels, maintaining a stubble height of six inches at the end of the growing season, and deferment grazing systems would allow for optimal recovery in vegetative cover, soil stabilization, and improved water quality. Additional impacts of the range improvement projects would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act.</p>

Impacts of Range Improvement Projects - Battle Creek and Winter users

Lakebeds

Impacts expected during construction of the Shoofly Creek exclosure would only occur along the fenceline. Minor vegetative disturbances would be required when constructing the fence and no motorized vehicles would be allowed off road. Impacts from yearly maintenance would be expected to be minor. Improvements within the cottonwood exclosure are expected to eliminate late spring hedging of willows, improve recruitment of cottonwood and willow shoots, and replace undesirable herbaceous vegetation with more desirable sedges and rushes. Livestock trampling of stream banks would be eliminated within the exclosure.

The temporary fence would eliminate May - June grazing on the lower portion of Shoofly Creek for at least five grazing seasons. Slight trailing along the fenceline from the pasture 21 side would be expected for the temporary rest period. Construction impacts would be expected to be minimal with temporary vegetative disturbances expected on individual plants.

The stream crossing on the West Fork of Shoofly Creek, which would be used during fall trailing, would be rock armored to minimize livestock impacts. Approximately 25 feet of stream channel and banks would be covered with layer of gravel and cobble-sized rock. The rock armoring would reduce the amount of sediment input into the stream by livestock and should also limit the length of streambank damaged by livestock hoof action by providing an accessible crossing site. The route utilizing this crossing would reduce the number of stream crossings not associated with a road from two to one (the previously used route crossed both East Fork Shoofly and Shoofly creeks).

Bench Pastures

The project work would involve habitat improvement and protection of Snow Creek Spring in pasture 12. During construction, off-road vehicle would occur causing temporary impacts to upland vegetation. Any vegetative disturbances within the uplands are expected to recover within a few years with adjacent perennial seed sources. The exclosure would eliminate livestock shading up under the aspen trees and heavy grazing on root suckers; and eliminate heavy to severe grazing of riparian vegetation along Snow Creek.

Water hauling would be authorized during years when Joe's Basin Reservoir dries up during the June use period. Impacts would be similar to what occurs at existing salting sites. The sites which have been selected would be on existing roads, current salting sites, or extremely rocky sites. During years when water hauling would be authorized, salting would be placed elsewhere to decrease impacts at water hauling sites. Due to the short durations when water would be hauled, livestock trails to and from the water hauling sites should be minimal. Additional heavy grazing impacts of adjacent vegetation would not be expected at the selected water haul sites because current salting impacts already exist or vegetation is limited due to rocky terrain.

Summer Pastures and FFRs

Impacts during construction of the Hutch Springs exclosure would be minimal and associated with construction only. Temporary impacts would be expected to individual plants along the fenceline route, but plants are expected to recover quickly.

Reservoir, Dry Creek #2, located in pasture 20 would be reconstructed to repair the breached dam structure. Disturbance would occur primarily within the catchment area. Some additional disturbances may be required on the down stream side of the dam, to collect enough materials to repair the dam structure. The areas outside of the catchment area would be broadcast seeded with native bunchgrass seed mix.

Junipers would be removed either by chainsaw or handsaw, with remaining stumps not exceeding six inches in height. Management through removal of encroaching juniper would decrease invasion of less desirable species (juniper) into stands dominated by more desirable shrub species. By controlling juniper invasion, winter forage species (mahogany, bitterbrush and native grasses in the understories) available for wintering mule deer would be maintained and possibly increase in the long term.

The Dry Creek riparian pasture fence (pasture 20R) would involve minor construction impacts along the fenceline route. Antelope typically use Dry Creek for summer and fall ranges and frequent the area often during these periods. The fence would be constructed as a 3-wire barbed fence with the bottom wire set 18 inches above the ground, adequate to allow antelope to cross under. Expected impacts from this project mainly include the creation of livestock trails along the fenceline to and from water outside of the riparian pasture. The two water ponds located approximately mid-way on the creek would be fenced out of pasture 20R to be used from the pasture 20 side. The spring in section 19 would also be fenced to allow livestock use from pasture 20. Impacts at both watering sites are expected to be heavy during the summer use periods. Dry Creek would be rested for five years or until MFP objectives are met once the pasture is created. Creating pasture 20R to better manage Dry Creek is expected to improve riparian conditions of the creek to a proper functioning condition which would allow for a short period of livestock use during the summer use period and still maintain Dry Creek in proper functioning condition.

Riparian Plantings.

Native sedges and rushes (*Carex* and *Juncus* sp.) would be planted in portions of Dry and West Fork Shoofly creeks with extensive areas of bare soil or plant communities with poor species composition. Willow cuttings would be planted to reestablish woody riparian plant communities and stabilize streambanks. Impacts would be limited to minor soil disturbance from digging planting holes.

Impacts of Range Improvement Projects - Little Jacks Creek Users

Pasture 10

Several miles of fence would be constructed or modified in pastures 10 and 15. The division fence separating pastures 10 and 15 would improve riparian conditions of Little Jacks Creek in the mid term and long term. Livestock trails are expected along portions of the fence along both sides of the fence, but trailing is expected to be minor with areas of greater impact near water sources. Modifications of the pasture 16 fence would improve conditions within the riparian areas along Little Jacks Creek in the mid term. Temporary impacts would be expected along the temporary Little Jacks Creek enclosure fence as livestock trail to and from water. Once the fence is removed after the initial rest period, recovery would be expected to occur quickly where temporary trailing occurred along the canyon rim.

Moving the OX Prong water gap fence upstream, actually decreasing the area currently used by livestock, would improve the condition of redband trout habitat typically included in the livestock impact area. Impacts from relocating the fence would be minimal and any disturbances would recover quickly. The fence would be relocated into a place which would be easier to maintain, and would improve the success for exclusion of livestock below the water gap downstream.

Range conditions adjacent to the spring in T.10S R.2E Section 10, once developed, would be expected to decrease somewhat over the long term. The spring head (if spring is susceptible to livestock impacts) would be fenced to be excluded from any livestock impacts. Conditions at Tigert and Little Tigert springs, Little Jacks Creek, and associated uplands would improve slightly in the long term with the development of the spring.

Riparian Plantings.

Native hydric plants (sedges, rushes, and willows) would be planted along streambanks with extensive areas of bare soil on Little Jacks Creek in pasture 10. Impacts would be limited to minor soil disturbances associated with digging planting holes.

Pasture 15

Conditions of the springs to be protected with enclosures would improve in the mid and long term. Conditions of the wet meadow and 1/8 mile Little Jacks Creek enclosures would improve in the mid and long term. A new fence would be constructed to protect the wet meadow in 10S2E5NENE and would result in temporary impacts during construction. Once completed, trailing impacts would be expected along the exterior fencelines as livestock trail to and from the reservoir directly north of the enclosure. The 1/8 mile of Little Jacks Creek would require some minor fence relocation and reconstruction. Trailing impacts would not be expected along this enclosure due to the rough terrain and rocky creek rim which currently restricts the majority of livestock access.

The Hutch Pipeline extension into pasture 15 would also improve heavily impacted perennial riparian areas by improving distribution and drawing livestock away from unprotected springs and seeps. Without seeding, areas disturbed during pipeline construction would be expected to revegetate in the mid term with the adjacent native perennial seed sources available. Without

livestock use during these later months, conditions within the OX Prong water gap would improve in the long term. Impacts would be expected to increase at the proposed location of the water trough and range condition is expected to decrease in the vicinity of the trough.

Water hauling would be authorized during years when Owen's Basin, Basin, and Tanks reservoirs dry up during the August and September use period. Impacts would be similar to what occurs at existing salting sites. Due to the short durations when water would be hauled, livestock trails to and from the water hauling sites should be minimal. Vegetation immediately adjacent to the water tanks could receive heavy use. Specifically, adjacent mountain mahogany stands could receive heavy livestock browsing during water hauling periods. In extremely dry situations when reservoirs dry up completely, livestock would tend to shade up more than normal. If water hauling is authorized in pasture 15, intense monitoring would occur on the mountain mahogany during the grazing period. When utilization standards are reached for any perennial species, livestock would be removed from the pasture.

Juniper management

Juniper encroaching into mountain mahogany stands within pasture 15 would be selectively removed. Management through removal of encroaching juniper would decrease invasion of less desirable species (juniper) into stands of more desirable species (mahogany). By controlling juniper invasion, winter forage species (mahogany and native grasses in the understories) available for mule deer would be maintained and possibly increase in the long term.

Pasture 16R

Modifications of the pasture 16 north fenceline to create a water gap at the creek crossing and pasture 16R (to be excluded from livestock grazing) would improve conditions within the riparian areas along Little Jacks Creek. Temporary impacts would be expected along the existing and new fencelines during construction. Trailing impacts are expected to occur along the enclosure fenceline from the pasture 10 and 15 sides. With the exception of reinforcing the creek crossing (temporary water gap), minor impacts are expected during construction, but long term improvement of Little Jacks Creek in pasture 10 would be expected. Conditions within the pasture 16R enclosure would improve quickly and continue to improve in the long term. Habitat protection and improvement within the enclosure would increase habitat for redband trout, spotted frogs, and sage grouse. Good condition of the creek within pasture 16R would be expected to be achieved in < 5 years without any livestock grazing.

Pasture 10 Water Gap

Livestock in pasture 10 would still be able to access Little Jacks Creek for water at the road crossing that is currently located at the downstream edge (north portion) of pasture 16. The stream would likely remain in fair condition within much of the water gap, with localized bank shearing and trailing impacts immediately adjacent to the road crossing. The road crossing would be armored with a layer of cobble-sized rocks to minimize stream channel disturbance from vehicle traffic and livestock use.

CONSULTATION AND COORDINATION

Persons and Agencies Consulted

Interested publics and permittees were consulted extensively during development of this EA, as well as during preparation of the Draft and Final Battle Creek Allotment AIE. The BLM conducted a monitoring tour of the Battle Creek Allotment in July of 1995. Consultation began on March 16, 1998, when a meeting was held for all permittees and Interested Publics to discuss information concerning the allotment, and to explain the AIE process. During this time and later, the permittees and Interested Publics were invited to participate with BLM staff in the monitoring effort.

Following the March 16, 1998 meeting, the permittees and Interested Publics were invited to join the BLM staff for tours of the allotment. The first tour was conducted on March 24, 1998, and the second tour on April 25, 1998.

The Draft AIE was sent out for public review on July 16, 1998. BLM held an Open House for all permittees and Interested Publics on July 28, 1998. The purpose of the Open House was to answer any questions that may have come from the review of the findings in the Draft AIE. BLM staff met many times with groups and individuals to discuss concerns and possible alternative solutions submitted by permittees and Interested Publics. The Final Battle Creek Allotment AIE will incorporate public comments and additional monitoring data received during the review period.

Workshops were held for permittees and Interested Publics on November 2 & November 3, 1998 to discuss suggestions and ideas on management alternatives for the Battle Creek Allotment. Eleven people attended the workshop on November 2; and fourteen people attended the workshop on November 3.

In addition to the public workshops, the BLM met numerous times with Interested Publics and permittees to discuss and refine management ideas and options. The proposed action, alternatives, and analysis presented in this EA reflect the collective public input received throughout this lengthy and intensive consultation process.

Mailing List:

The following permittees, interested publics and organizations have been invited to all open houses and workshops, and were sent Draft AIE's and associated correspondence.

Paul Black	David Lahtinen
Boise District Grazing Board	Land & Water Fund
Gene Bray	Marty Marzinelli
Bruneau Cattle Company	Herb Meyr
Colyer Cattle Company	Paul Miller
Committee for Idaho's High Desert	Natural Resources Defense Council
J. Terry Field	Owyhee Calcium Products, Inc.
Craig Gillespie	Owyhee Cattlemen's Association
High Desert Coalition, Inc.	Owyhee County Commissioners
Holland & Hart, L.L.P.	Owyhee County Extension Service
Idaho Bird Hunters, Inc.	Ramona Pascoe
Idaho Cattle Association (Bennett)	Jesse Rubelt
Idaho Cattle Association (Braasch)	Chester W. Sellman, Jr.
Idaho Dept. of Agriculture	Shoshone-Paiute Tribes
Idaho Dept. of Fish and Game	Sierra Club, Middle Snake Group
Idaho Dept. of Lands (Hamilton)	Simplot Co/Battle Creek
Idaho Dept. of Lands (Stockton)	Michael Stanford
Idaho Farm Bureau Federation	Paul Turcke
Idaho Watersheds Project	John B. Urquidi
Idaho Wildlife Federation	The Wilderness Society
Knight Veterinary Clinic	

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Lois Palmgren - Archaeology Technician
Barry Rose - Writer/Editor
Jake Vialpando - Rangeland Management Specialist
Bruce Zoellick - Fisheries Biologist

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APPENDICES

Appendix A: Project Management System (PMS)		Appendix B: Project Management System (PMS)			
Project Management System (PMS)		Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)
Project Management System (PMS)	PM 1	0	0	0	0
	PM 1.1	0	0	0	0
	PM 1.2	0	0	0	0
	PM 1.3	0	0	0	0
	PM 1.4	0	0	0	0
	PM 1.5	0	0	0	0
	PM 1.6	0	0	0	0
	PM 1.7	0	0	0	0
	PM 1.8	0	0	0	0
	PM 1.9	0	0	0	0

Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)
Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)	Project Management System (PMS)

Project Management System (PMS)

Appendix A-BC **Land Use Plan Conformance**
Long Term Progress Toward MFP Objectives /
Battle Creek and Winter Users

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		BC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Range Management (RM)	RM 1	★	-	☾	★
	Increase vigor, density, and production of desirable vegetation.				
	RM 1.1	★	-	★	★
	Establish livestock rest or deferment on critical sage grouse and antelope areas.				
	RM 1.5	★	☾	★	★
	Implement grazing systems to meet minimum needs of preferred plant species.				
	RM 2	AP*	AP*	AP*	AP*
	Treat suitable land to increase forage production and reduce acres in poor condition.				
	RM 2.2	AP*	AP*	AP*	AP*
	Treat suitable native range to improve ecological condition and increase forage.				
	RM 3	★	-	★	★
	Allocate livestock forage within limits necessary to maintain/enhance range and soils.				
	RM 3.1	☾	-	☾	★
	Increase or reduce AUMs based on monitoring.				
	RM 3.2	★	-	★	★
	Provide sufficient food, cover, and water for big game. Monitor key wildlife areas.				
	RM 5.1	☾	-	☾	☾
	Provide for or enhance rare and endangered plants.				

Progress Toward MFP Objectives	Symbol	-	☾	★
	Meaning	Little or no progress	Limited progress	Significant progress

AP* = Achieved Previously

**Appendix A-BC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives /
Battle Creek and Winter Users**

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		BC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Wildlife (WL)	WL 2	★	-	●	★
	Manage sensitive species habitats to maintain existing or potential populations.				
	WL 2.1	★	●	●	★
	Manage canyonland habitat for the priority of bighorns; do not develop livestock water within a mile of bighorn habitat.				
	WL 2.7	★	●	●	★
	Manage livestock to improve mountain quail habitat in Shoofly Creek.				
	WL 3	★	-	●	★
	Manage 1,143,000 acres of big game habitat to obtain good ecological condition.				
	WL 3.1	★	-	★	★
	Allow 30% livestock utilization on key shrub species in mule deer winter range.				
	WL 3.2	●	●	●	★
	Allow 50% livestock utilization on key shrub species in deer spring/summer/fall range.				
	WL 3.3	★	●	●	★
	Manage pronghorn habitat for good ecological condition where feasible.				
	WL 4	★	-	●	★
	Manage upland game and waterfowl habitats to increase populations.				
	WL 4.3	●	-	●	★
	Control livestock grazing on springs, seeps, meadows. Protect areas if necessary.				
	WL 4.4	●	-	●	★
	Improve sage grouse nesting and brood rearing habitats to good ecological condition.				
	WL 6.1	★	-	●	★
	Manage all riparian habitats and meadows to attain/maintain good ecological condition.				

Progress Toward MFP Objectives	Symbol	-	●	★
	Meaning	Little or no progress	Limited progress	Significant progress

**Appendix A-BC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives /
Battle Creek and Winter Users**

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		BC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Wildlife / Aquatic (WL-AQ)	WL-AQ 2	★	◐	★	★
	Improve fisheries physical habitat to fair and good condition. Standards are: tall cover provides 60% to 80% stream shading ; low cover >4" ; <11% of streambanks actively eroding ; <6% lateral channel movement in stream reach ; <15% channel bottom covered by fine sediments ; 25% to 50% of chan. contains stream fish cover.				
	WL-AQ 2.1	★	◐	★	★
	Improve fisheries habitat from poor to fair and good condition through grazing exclusion on Little Jacks, OX Prong, Shoofly, E. Fk. Shoofly, and W. Fk. Shoofly.				
	WL-AQ 2.2	-	-	-	-
	Improve fisheries habitat from poor to fair and good condition through intensive livestock management on Battle Creek (.16 miles).				
	WL-AQ 3	★	◐	★	★
DEQ Water Quality Standards	Protect and manage seasonal flows to maintain habitat conditons for redband trout on segments of Little Jacks, E. Fk. Shoofly, and W. Fork Shoofly that were rated in good condition in 1980.				
	WL-AQ 3.1	★	◐	★	★
	Provide flow recommendations to IDFG. Manage flows for good water quality.				
DEQ Water Quality Standards	DEQ	★	◐	◐	★
	For cold biota: ≤ 22°C. For secondary contact recreation: fecals ≤ 800 colonies/100ml.				

Progress Toward MFP Objectives	Symbol	-	◐	★
	Meaning	Little or no progress	Limited progress	Significant progress

AP* = Achieved Previously

**Appendix A-BC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives /
Battle Creek and Winter Users**

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		BC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Watershed (WM)	WS 1	★	-	◐	★
	Maintain stability of moderate, high, and critical erosion hazard classes.				
	WS 1.1	★	-	◐	★
Cultural Resources (CRM)	CRM 1.2	◐	◐	◐	◐
	Incorporate measures to protect sites from livestock grazing.				
	CRM 2.3	★	-	◐	★
	Stabilize cut banks and protect cultural sites on a case by case basis.				
Visual Resource Management (VRM)	CRM 2.4	◐	◐	◐	◐
	Exclude livestock from cultural sites on a priority case by case basis.				
Visual Resource Management (VRM)	VRM 1	★	-	◐	★
	Manage public land in a manner that will protect/maintain existing visual qualities.				

Progress Toward MFP Objectives	Symbol	-	◐	★
	Meaning	Little or no progress	Limited progress	Significant progress

AP* = Achieved Previously

Appendix A-LJC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives / Little Jacks Crk. Users

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		LJC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Range Management (RM)	RM 1	★	◐	◐	★
	Increase vigor, density, and production of desirable vegetation.				
	RM 1.1	★	-	★	★
	Establish livestock rest or deferment on critical sage grouse and antelope areas.				
	RM 1.4	★	-	◐	★
	Develop livestock management facilities needed to implement grazing systems to achieve objectives.				
	RM 1.5	★	-	★	★
	Implement grazing systems to meet minimum needs of preferred plant species.				
	RM 2	AP*	AP*	AP*	AP*
	Treat suitable land to increase forage production and reduce acres in poor condition.				
	RM 2.2	AP*	AP*	AP*	AP*
	Treat suitable native range to improve ecological condition and increase forage.				
	RM 3	★	◐	◐	★
	Allocate livestock forage within limits necessary to maintain/enhance range and soils.				
	RM 3.1	◐	-	◐	★
	Increase or reduce AUMs based on monitoring. (MFP said 33% reduction in CC).				
	RM 3.2	★	◐	◐	★
	Provide sufficient food, cover, and water for big game. Monitor key wildlife areas.				
	RM 5.1	◐	-	◐	★
	Provide for or enhance rare and endangered plants.				

Progress Toward MFP Objectives	Symbol	-	◐	★
	Meaning	Little or no progress	Limited progress	Significant progress

AP* = Achieved Previously

Appendix A-LJC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives / Little Jacks Crk. Users

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		LJC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Wildlife (WL)	WL 2	★	◐	◐	★
	Manage sensitive species habitats to maintain existing or potential populations.				
	WL 2.1	★	◐	◐	★
	Manage canyonland habitat for the priority of bighorns.				
	WL 2.7	★	-	◐	★
	Manage livestock to improve mountain quail habitat in Shoofly Creek.				
	WL 3	★	-	◐	★
	Manage 1,143,000 acres of big game habitat to obtain good ecological condition.				
	WL 3.1	★	-	◐	★
	Allow 30% livestock utilization on key shrub species in mule deer winter range.				
	WL 3.2	★	◐	★	★
	Allow 50% livestock utilization on key shrub species in deer spring/summer/fall range.				
	WL 3.3	★	◐	◐	★
	Manage pronghorn habitat for good ecological condition where feasible.				
	WL 4	★	◐	◐	★
	Manage upland game and waterfowl habitats to increase populations.				
	WL 4.3	◐	-	◐	★
	Control livestock grazing on springs, seeps, meadows. Protect areas if necessary.				
	WL 4.4	◐	-	◐	★
	Improve sage grouse nesting and brood rearing habitats to good ecological condition.				
	WL 6.1	★	-	◐	★
	Manage all riparian habitats and meadows to attain/maintain good ecological condition.				

Progress Toward MFP Objectives	Symbol	-	◐	★
	Meaning	Little or no progress	Limited progress	Significant progress

Appendix A-LJC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives / Little Jacks Crk. Users

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		LJC Proposed Action.	Alternative 1 No Change	Alternative 2	Alternative 3
Wildlife / Aquatic (WL-AQ)	WL-AQ 2	★	◐	★	★
	Improve fisheries physical habitat to fair and good condition. Standards are: tall cover provides 60% to 80% stream shading ; low cover >4" ; <11% of streambanks actively eroding ; <6% lateral channel movement in stream reach ; <15% channel bottom covered by fine sediments ; 25% to 50% of chan. contains stream fish cover.				
	WL-AQ 2.1	★	◐	★	★
	Improve fisheries habitat from poor to fair and good condition through grazing exclusion on Little Jacks Creek and OX Prong..				
	WL-AQ 3	★	★	★	★
	Protect and manage seasonal flows to maintain habitat conditons for redband trout on segments of Castle and W. Fork Shoofly that were rated in good condition in 1980.				
DEQ Water Quality Standards	WL-AQ 3.1	★	◐	★	★
	Provide flow recommendations to IDFG. Manage flows for good water quality.				
DEQ Water Quality Standards	DEQ	★	◐	★	★
	For cold biota: ≤ 22°C. For secondary contact recreation: fecals ≤ 800 colonies/100ml.				

Progress Toward MFP Objectives	Symbol	-	◐	★
	Meaning	Little or no progress	Limited progress	Significant progress

AP* = Achieved Previously

**Appendix A-LJC Land Use Plan Conformance
Long Term Progress Toward MFP Objectives / Little Jacks Crk. Users**

Objectives Bruneau Management Framework Plan (1983)		Alternatives			
		LJC Proposed Action	Alternative 1 No Change	Alternative 2	Alternative 3
Watershed (WM)	WS 1	★	-	★	★
	Maintain stability of moderate, high, and critical erosion hazard classes.				
	WS 1.1	★	◐	★	★
		Allocate ≤ 50% of vegetation to consumptive use. Where feasible establish perennial vegetative cover. If not feasible, manage to achieve stable watershed conditions.			
Cultural Resources (CRM)	CRM 2.3	★	-	◐	★
	Stabilize cut banks and protect cultural sites on a case by case basis.				
Visual Resource Management (VRM)	VRM 1	★	-	◐	★
	Manage public land in a manner that will protect/maintain existing visual qualities.				
	VRM 1.6	★	-	◐	★
		Designate a corridor each side of the Mud Flat Road as a travel influence zone, where activities will preserve or enhance the scenic quality.			

Progress Toward MFP Objectives	Symbol	-	◐	★
	Meaning	Little or no progress	Limited progress	Significant progress

AP* = Achieved Previously

Appendix B: Changes in Permitted Use

Changes common to Battle Creek Allotment:

- a. No Permitted AUMs are assigned to the C.J. Strike pastures (pastures 3, 5, 6, 7, 8B, 8C). All other isolated tracts of BLM are excluded from livestock grazing.
- b. The Little Valley Holding Pasture shall be authorized to Battle Creek Allotment permittees to overnight livestock trailed to/from public land for one night. Permittees must receive authorization from the authorized officer prior to use. All use of the holding facility will be in full conformance with Federal Grazing Regulations.

Changes Specific to Battle Creek and Winter User Permits:

Table B1. Permitted Use Adjustments By Pasture

Pasture	Permittees	Total Permitted Use (AUMs)	Suspended Permitted Use (AUMs)	Active Permitted Use by Season-of-Use (AUMs)				
				Spring	Summer	FFRs	Winter	Total
8	BCC, SBC	807	0	807	0	0	0	807
21	BCC, SBC, and Paul Black	1,871	0	1,871	0	0	0	1,871
22, 9	BCC, SBC, and Paul Black	2,460	0	2,460	0	0	0	2,460
12	BCC, SBC, and Paul Black	566	0	566	0	0	0	566
14	BCC, SBC, and Paul Black	1,328	0	0	1,328	0	0	1,328
20	BCC, SBC, and Paul Black	3,830	0	0	3,830	0	0	3,830
20R	BCC, SBC, and Paul Black	33	0	0	33	0	0	33
18	BCC	214	0	0	0	214	0	214
19	SBC	89	0	0	0	89	0	89
8	Craig Gillespie, OCP	155	0	0	0	0	155	155
8A	Terry Fields	121	0	0	0	0	121	121
Totals		11,474	0	5,704	5,191	303	276	11,474

Changes Specific to Little Jacks Creek User Permits:

Table B2. Permitted Use Adjustments By Pasture

Pasture	Permittees	Total Permitted Use (AUMs)	Suspended Permitted Use (AUMs)	Active Permitted Use (AUMs)			
				Spring	Summer	FFR	Total
10	Dave Lahtinen	408	0	408	0	0	408
	Chet Sellman	227	0	227	0	0	227
	John B. Urquidi	135	0	135	0	0	135
15	Dave Lahtinen	408	0	0	408	0	408
	Chet Sellman	226	0	0	226	0	226
	John B. Urquidi	129	0	0	129	0	129
Totals		1,533	0	770	763	0	1,533

Appendix C: FFR Pastures and Permitted AUMs.

Table B1. Battle Creek FFRs

FFR Pasture	Permittee	AUMs
13	Colyer Cattle Company (non-permittee)	0
18	Bruneau Cattle Company	214
19	Simplot Livestock/Battle Creek	89
Total		303

Appendix D: Specified Trail Routes and Stipulations

Battle Creek Users

(a) Spring:

Livestock would be herded through pasture 22H every spring. In alternate years, livestock would be trailed up and through the East Fork of Shoofly Creek in pasture 22. Permittees would be required to monitor for six-inch stubble heights of herbaceous riparian vegetation during the grazing period. When six-inch stubble height is reached at the key use site, livestock would be trailed into the uplands, and removed from the creek. A bank shearing standard of 10 percent would also be applied to creeks in the Shoofly drainage. If bank shearing exceeds 10 percent during spring use, then fall trailing would not be authorized. BLM would monitor bank shearing.

In years when livestock are not authorized to trail up the East Fork of Shoofly Creek, livestock would be trailed to the uplands in the southwest portion of pasture 22 (Between the Creeks, Rosebriar Spring, and Errol's Corner). Once in this portion of pasture 22, permittees are encouraged to hold a portion of the herd in this portion of pasture 22. However, regular riding would be required to ensure drift, across West Fork of Shoofly Creek, doesn't occur from pasture 12; and livestock are completely kept out of the East Fork of Shoofly Creek. If livestock drift back into the East Fork of Shoofly Creek during the rest year, an additional year of rest would be added to the next rest period.

(b) Fall:

Trailing from private pastures in the summer and fall range would occur October through November. Livestock would be actively trailed through pasture 14 to Errol's Corner of pasture 22 where livestock would be herded through the gate and moved along a series of trails to Between the Creeks. Livestock would be moved down Between the Creeks to pasture 22H where they would be authorized to water. As livestock move down the trail to pasture 22H, riders would be required to ensure the gate into pasture 22H, on the East Fork of Shoofly Creek, is opened prior to cattle reaching the gate so cattle don't gather at a closed gate increasing the impacts on the East Fork. After cattle are watered up within pasture 22H, livestock would be trailed along the road and kept out of Shoofly Creek as best as possible. Animals would overnight in a corral located in pasture 21. The following day livestock would trail through pasture 21 either to the east and across Little Jacks Creek to private land; or to the north into the winter range and other private land. If Riparian Use Criteria, as described in the Proposed Action, are exceeded during fall trailing, then spring and fall trailing the following year would not be authorized on Shoofly and East Fork of Shoofly creeks.

Little Jacks Creek Users

(a) Spring:

Livestock are authorized to graze in the Northwest Allotment to the east and southeast of pastures 10 and 15 of Battle Creek Allotment during April and May. Livestock would be moved into pasture 10 from the Northwest Allotment on June 1.

(b) Fall:

Livestock would be trailed from pasture 15 following the WSA boundary road through pasture 10, into the Northwest Allotment, and finally to private land in Little Valley. The flexibility Term and Condition would apply to pasture 15 during the gathering period on September 30. On the first day, livestock would be trailed to Tigert Spring and allowed to water. The following day all livestock would be moved from Tigert Spring, through Horse Basin Gap, ~~would~~ water at Little Jacks Creek, and complete the trip to private land in Little Valley. If more than one trailing event is required in the fall, each group of livestock trailed to water at Tigert Spring, would be allowed only one night of stay at the spring. Each trailing event requires prior authorization by the BLM authorized officer prior to moving livestock across public land. Each trailing event would be mapped out and coordinated with the BLM authorized officer prior to trailing. All trailing must be completed by October 5, allowing five days after the grazing period, to trail all livestock to private land in Little Valley. Livestock authorized under the Urquidi grazing permit, when trailed from private pasture in Owen's Basin, would be authorized as described in this section, with exception to the October 5 deadline.

Cattle that separate from the herd during trailing on public land must be reported the next day to the BLM authorized officer. Arrangements will be made that day to ensure the separated livestock are gathered and trailed home. No livestock are allowed to be on Little Jacks (except as described previously), Big Jacks, or Rattlesnake creeks during fall trailing. Cattle found on these creeks will be considered in trespass in conformance with 43 CFR 4140.1, and action will be taken in accordance with 43 CFR 4150.1 of the Federal Grazing Regulations.

Appendix E: Proposed Projects - Proposed Action

All projects descriptions are approximate. Final locations and specifications would be determined on the ground during survey and design.

Battle Creek Users

Project Descriptions:

Dry Creek Riparian Pasture - The purpose of this action is to create a 983 acre riparian pasture that would facilitate improvement in the condition of Dry Creek in pasture 20 from functioning at risk to proper functioning condition and improve meadow habitats for sage grouse. The fence would be a 3-strand barbed wire fence with the top wire at an average height of 42 inches and the bottom wire set at 18 inches above the ground to facilitate antelope movement. The riparian fence would be coordinated and contracted by BLM, and the fence would be maintained by the permittees.

Shoofly Cottonwood Exclosure - The purpose of this action is to protect a segment of Shoofly Creek in pasture 21 that is vegetated with a cottonwood/riparian shrub community. This plant community is uncommon in Owyhee County and the exclosure would provide a reference area for this plant community and improve habitat conditions for migratory songbirds and redband trout. The project entails the construction of about 0.5 mile of permanent fence east of Shoofly Creek. BLM would construct and maintain the fence.

Shoofly Temporary Electric Fence - The purpose of this action is to speed improvements of aquatic/riparian habitats on Shoofly Creek by preventing livestock grazing of Shoofly Creek in pasture 22 until the stream improves to good condition. The project entails the temporary placement of about 0.5 mile of let down electric fence across the lower end of the Shoofly Creek canyon. The fence would be let down (rolled up into reels attached to end posts) by July 15, each year. Permittees would construct, maintain, and let down the fence each year.

Snow Creek Spring Reconstruction (T.8S R.1E Section 22) - The purpose of this action is to provide a dependable water source for livestock and wildlife and improve riparian and wildlife habitat conditions of Snow Creek and adjacent aspen stands by fencing the areas associated with the spring to prevent their use by livestock. Reconstruction of the spring would require replacing approximately 800 feet of 2 inch flex pipeline from the headbox, crossing the intermittent stream channel, to the new trough location. The trough would be located approximately 100 feet west of the riparian area in the uplands. This would allow for livestock to utilize the water in the uplands, rather than the riparian area. The water trough currently located within the stream channel would be removed and relocated at the upland site. One exclosure, approximately 26 acres, would be constructed to protect riparian vegetation and remnant aspen trees from livestock use during June. BLM would reconstruct the spring, and build the exclosure. Permittees would be required to maintain the spring development and exclosure fences.

Dry Creek and West Fork Shoofly Creek Riparian Enhancements - Native sedges and rushes (*Carex* and *Juncus* sp.) would be planted in portions of Dry and West Fork Shoofly creeks with extensive areas of bare soil or plant communities with poor species composition to speed recovery of riparian/aquatic habitats. Willow cuttings would be planted to reestablish woody riparian plant communities and stabilize streambanks. Planting work would be completed by the BLM and volunteers.

Dry Creek Reservoir #2 Reconstruction (T.10S R.1E Section 17) - The purpose of this action is to reconstruct a snow catch reservoir for year long wildlife use and summer livestock use. The catchment area would be excavated to allow for successful water storage and a proper spillway would be constructed to allow water in above normal runoff years to flow downstream. Reconstruction of the reservoir would be completed by BLM and maintained by the permittees.

Hutch Spring Enclosure (T.9S R.1E Section 17)- The purpose of this action is to fence livestock use from a series of natural springs and seeps. Construction would be completed by BLM and the permittees would be responsible for maintenance.

8A Fence Maintain/Reconstruct - The purpose of this action is to reconstruct the pasture boundary fences to BLM specifications before livestock grazing is authorized. Construction and maintenance would be completed by the permittee.

Water Hauling in pasture 12 - This action would allow livestock use during years when Joe's Basin Reservoir dried up during the use period. Two water tanks would be allowed at each water haul site. There are three sites which have been designated for trough placement (Map 4). The sites which have been selected are either on existing roads, current salting sites, or extreme rocky sites.

Juniper Management - This action would eliminate juniper encroachment into mountain mahogany and bitterbrush stands within pastures 12, 14, and 20 by selectively removing existing juniper trees. Junipers would be removed either by chainsaw or handsaws, with remaining stumps not exceeding 6 inches in height. Removal work would be completed by the BLM.

Little Jacks Creek Users

Project Descriptions:

Little Jacks Creek Temporary Electric Fence - The purpose of this action is to provide rest for Little Jacks Creek to allow the stream to recover to good fisheries habitat condition. Initial rest would be for a period of five years or until MFP objectives are achieved. Approximately 2.8 miles of temporary electric fence would be within the wilderness study area. The fence would be a roll up 3-strand smooth wire electric fence with steel posts and rock jacks used as corners and where posts can not be driven into the ground due to the rockiness of the area. The fence would be let down

(rolled up into reels attached to end posts) by August 15, each year. The fence would be constructed and maintained by the permittees.

Pasture 15 Division Fence - The purpose of this action is to separate pastures 10 and 15 with a boundary fence to allow for proper management of the livestock and implement a deferred grazing system. The fence would also ensure livestock use is eliminated on Little Jacks Creek during August and September. The fence would be constructed and maintained by the permittees.

Little Jacks Water Gap - The purpose of this action is to create a water gap for livestock in association with the road crossing of Little Jacks Creek (T9S R2E Section 34 SWNW). The gap would limit livestock access to approximately 50 feet of stream. Streambed and banks would be stabilized with cobble-sized rocks for the width of the road crossing (approximately 20 to 25 feet wide). Modifications would be completed by BLM and maintenance would be the permittees responsibility.

OX Prong Water Gap - The purpose of this action is to move the drift fence upstream approximately 1/8-1/4 mile to shorten the water gap. Modification and maintenance would be the permittee's responsibility.

Little Jacks Creek Riparian Enhancement - Native sedges and rushes (*Carex* and *Juncus* sp.) would be planted in portions of Little Jacks Creek with extensive areas of bare soil or plant communities with poor species composition to speed recovery of riparian/aquatic habitats. Willow cuttings would be planted to reestablish woody riparian plant communities and stabilize streambanks. Planting work would be completed by the BLM and volunteers.

Hutch Pipeline Extension (Pasture 15) - The purpose of this action is to create a perennial water source for livestock use in pasture 15 during August and September. This water source would ensure implementation of the deferred grazing management of the Little Jacks Creek area. The pipeline and trough replaces OX Prong of Little Jacks Creek as the perennial watering source during August and September. After completion of the pipeline extension, the pipeline route would be broadcast seeded by hand with either a native perennial seed mixture of bluebunch wheatgrass, fescue, and bluegrass; or straight bluebunch wheatgrass seed. It is disputed by Bruneau Cattle Company that the pipeline is not capable of providing enough water to both pasture 14 and 15 during the overlapping September use period in alternate years. If it is determined that the pipeline with the extension is not capable of providing adequate water to both pastures, pasture 15 permittees will be authorized to find an alternate water source or to haul water and fill the pipeline trough with during the September use period. With the exception to the September overlapping alternate year use period, water will be provided to the trough during August and September in pasture 15 via the Hutch Pipeline. The extension would be completed by the BLM and maintained by the permittees. It will be the responsibility of the pasture 14 and 15 permittees to come to a maintenance agreement to provide water to pasture 15 for August and September. If an agreement cannot be reached, the BLM may assist in devising an agreement for maintenance.

Reservoir Reconstructions (9S2E31, 9S2E32, 10S2E5NENE, 10S2E7NE) - The purpose of this action is to reconstruct four previously successful livestock watering reservoirs to better distribute livestock. Poor maintenance in the past has filled these reservoirs with sediment or breached the dams. Without these four reservoirs livestock distribution would be very poor. Reconstruction would be completed by the BLM and maintenance would be the permittee's responsibility.

Wet Meadow Exclosure (10S2E5NENE) - The purpose of this action is to exclude 1/4 mile of Little Jacks Creek and associated wet meadow vegetation from August and September livestock use. This action would improve potential sage grouse and spotted frog habitat. Construction would be completed by the BLM and maintenance would be the permittee's responsibility.

Pasture 16 Fenceline Modifications - The purpose of this action is to remove the west boundary fence of pasture 16, including 800 acres of public rangeland into pasture 15, to support the deferred grazing system and eliminate administration problems by poorly maintained FFR fences. Urquidi would be allowed to remove the fence materials (privately purchased materials) from the west boundary fence to be used for his private land fences. If Mr. Urquidi would prefer not to fence their private land separately from pastures 10 and 15, the fences can have minor modifications in order to implement the pasture 10 and 15 division to implement the deferred grazing system. An Exchange of Use application may be submitted and if agreed upon, private land may be credited. The permittees will be responsible for fence maintenance.

Pasture 16R - The purpose of this proposed action is to modify the north fenceline of pasture 16 to create a water gap at the road crossing on Little Jacks Creek and exclude livestock grazing along the upper portion of Little Jacks Creek to improve fisheries, sage grouse, and spotted frog habitat. Modifications would be completed by the BLM and maintenance would be the permittee's responsibility.

Spring Exclosures in Pasture 15 (9S2E32, 10S2E5) - The purpose of this action is to construct two exclosures to eliminate livestock grazing on the spring heads and associated riparian habitats. Construction would be completed by the BLM and maintenance would be the permittee's responsibility.

Spring Development in pasture 10 (10S2E10) - The purpose of this action is to develop a short pipeline to a trough. Any overflow water would be returned drainage below the spring head and the spring area would be fenced to protect the riparian vegetation. The project would be developed by the BLM and maintained by the permittees.

Water Hauling in pasture 15 - This action would allow livestock use during years when Owen's Basin, Basin, and Tanks reservoirs dried up during the use period. Two water tanks would be allowed at each water haul site. There are three sites which have been designated for trough placement (Map 4). The sites which have been selected are either on existing roads, current salting sites, extreme rocky areas, or reservoir sites.

Juniper Management - This action would eliminate juniper encroachment into mountain mahogany and bitterbrush stands within pasture 15 by selectively removing existing juniper trees. Junipers would be removed either by chainsaw or handsaws, with remaining stumps not exceeding 6 inches in height. Removal work would be completed by the BLM.

Appendix F: Project Priority and Target Dates

The projects identified in Table F1 are proposed to fully implement the proposed grazing management. Final determinations for construction would be made following survey and design and feasibility studies. The target dates indicated are the preferred completion dates.

Specific descriptions of each project are contained in Appendix E.

Table F1. Battle Creek Projects

User Group	Priority	Project Name	Target Date
Battle Creek/ Winter	1	Shoofly Temporary Electric Fence	5/1/2000
	1	Dry Creek Riparian Pasture	7/31/2000
	1	Maintain/Reconstruct 8A Fence	10/31/2000
	1	Dry Creek Riparian Enhancement	10/31/2000
	2	Shoofly Cottonwood Exclosure	5/1/2001
	2	Snow Creek Spring Reconstruction	6/1/2001
	2	Hutch Spring Exclosure	7/31/2001
	2	Dry Creek Reservoir #2 Reconstruction	10/31/2001
Little Jacks Creek	1	Little Jacks Creek Temporary Electric Fence	6/1/2000
	1	Pasture 16 Fenceline Adjustments	6/1/2000
	1	Little Jacks Water Gap	7/1/2000
	1	Pasture 15 Division Fence	7/1/2000
	1	Hutch Pipeline Extension (Pasture 15)	8/1/2000
	1	Little Jacks Creek Riparian Enhancement	10/31/2000
	2	Spring Exclosure	8/1/2001
	2	Spring Exclosure	8/1/2001
	2	Wet Meadow Exclosure (10S2E5NENE)	8/1/2001
	2	Reservoir Reconstruction (9S2E31SE, 9S2E32NW, 10S2E5NE, 10S2E7NE)	10/31/2001
	3	Spring Development (10S2S10SENE)	10/31/2001
	3	OX Prong Water Gap	10/31/2002

**Appendix G-BC Summary of Environmental Impacts Compared to Existing Conditions
Battle Creek and Winter Users**

Resource Category			Alternatives							
			BC Proposed Action		Alternative 1 No Change		Alternative 2		Alternative 3	
			Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term
Upland Vegetation Impacts	Range/ Watershed	Early Spring Pastures	++	++	-	-	+	+	++	++
		Mid Spring Pastures	+	+	0	0	+	++	++	++
		Late Spring Pastures	+	+	0	0	+	+	++	++
		Summer Pastures	+	++	0	0	+	+	++	++
		Winter Pastures	++	++	+	+	+	++	++	++
	Forage Production	Early Spring Pastures	++	++	-	-	+	+	++	++
		Mid Spring Pastures	+	+	0	0	+	++	++	++
		Late Spring Pastures	+	+	0	0	+	+	+	++
		Summer Pastures	+	+	0	0	+	+	+	++
		Winter Pastures	+	++	+	+	+	+	+	++
	Microbiotic Crusts		0	+	0	0	0	+	+	++
Wildlife Terrestrial Habitat Impacts	Big Game		+	++	0	0	0	+	+	++
	Upland Game		+	++	0	0	0	+	+	++
	Nongame Species		+	++	0	0	0	+	+	++

Key

Extent of Change	Symbol	- -	-	0	+	++
	Meaning	Widespread negative impacts	Negative impacts on certain sites or key use areas / outweigh positive impacts	Little or no change	Positive impacts on certain sites or key use areas / outweigh negative impacts	Widespread positive impacts

Rate of Change	Mid-term/ < 10 years	Long-term/ 10-20 years
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**Appendix G-BC Summary of Environmental Impacts Compared to Existing Conditions
Battle Creek and Winter Users**

Resource Category		Alternatives							
		BC Proposed Action		Alternative 1 No Change		Alternative 2		Alternative 3	
		Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term
Riparian/ Aquatic Habitat Impacts	Perennial Streams	++	++	+	++	+	++	++	++
	Intermittent Streams	++	++	0	0	+	++	+	++
	Springs and Seeps	+	+	0	0	+	+	+	+
Water Quality Impacts		+	++	+	+	+	++	+	++
Recreation Impacts		++	++	0	0	+	+	++	++

Key

Extent of Change	Symbol	- -	-	0	+	++
	Meaning	Widespread negative impacts	Negative impacts on certain sites or key use areas / outweigh positive impacts	Little or no change	Positive impacts on certain sites or key use areas / outweigh negative impacts	Widespread positive impacts

Rate of Change	Mid-term/ < 10 years	Long-term/ 10-20 years
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Appendix G-BC	Summary of Environmental Impacts to Special Status Plants and Animals, Compared to Existing Conditions. Battle Creek and Winter Users							
Special Status Species	Alternatives							
	BC Proposed Action		Alternative 1 No Change		Alternative 2		Alternative 3	
	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term
Redband Trout	++	++	+	++	+	+	++	++
Spotted Frogs	+	++	0	0	+	+	+	++
Kit Fox	+	+	0	0	0	+	+	++
Mountain Quail	++	++	+	++	+	++	+	++
California Bighorn Sheep	+	++	0	0	0	+	+	++
Mulford's Milkvetch	0	+	0	-	0	+	+	++
Mudflat Milkvetch	+	+	0	0	0	+	+	+

Key

Extent of Change	Symbol	- -	-	0	+	++
	Meaning	Widespread negative impacts	Negative impacts on certain sites or key use areas / outweigh positive impacts	Little or no change	Positive impacts on certain sites or key use areas / outweigh negative impacts	Widespread positive impacts

Rate of Change	Mid-term/ < 10 years	Long-term/ 10-20 years
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Appendix G-LJC Summary of Environmental Impacts Compared to Existing Conditions Little Jacks Creek Users

Resource Category			Alternatives							
			LJC Proposed Action		Alternative 1 No Change		Alternative 2		Alternative 3	
			Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term
Upland Vegetation Impacts	Range/ Watershed	Early Spring Pastures	NA	NA	NA	NA	NA	NA	NA	NA
		Mid Spring Pastures	NA	NA	NA	NA	NA	NA	NA	NA
		Late Spring Pastures	+	++	0	0	0	0	++	++
		Summer Pastures	+	++	-	-	++	++	+	++
		Winter Pastures	++	++	NA	NA	-	-	NA	NA
	Forage Production	Early Spring Pastures	NA	NA	NA	NA	NA	NA	NA	NA
		Mid Spring Pastures	NA	NA	NA	NA	NA	NA	NA	NA
		Late Spring Pastures	+	++	0	0	+	+	++	++
		Summer Pastures	+	+	0	-	+	+	+	++
		Winter Pastures	NA	NA	NA	NA	NA	NA	NA	NA
	Microbiotic Crusts		0	-	0	-	0	+	+	++
Wildlife Terrestrial Habitat Impacts	Big Game		+	++	0	0	0	+	+	++
	Upland Game		+	++	0	0	0	+	+	++
	Nongame Species		+	++	0	0	0	+	+	++

Key

Extent of Change	Symbol	- -	-	0	+	++
	Meaning	Widespread negative impacts	Negative impacts on certain sites or key use areas / outweigh positive impacts	Little or no change	Positive impacts on certain sites or key use areas / outweigh negative impacts	Widespread positive impacts

Rate of Change	Mid-term/ < 10 years	Long-term/ 10-20 years
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Appendix G-LJC Summary of Environmental Impacts Compared to Existing Conditions Little Jacks Creek Users

Resource Category		Alternatives							
		LJC Proposed Action		Alternative 1 No Change		Alternative 2		Alternative 3	
		Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term
Riparian/ Aquatic Habitat Impacts	Perennial Streams	++	++	++	++	++	++	++	++
	Intermittent Streams	+	++	0	+	+	+	+	++
	Springs and Seeps	+	+	0	0	+	+	+	++
Water Quality Impacts		+	++	0	+	+	++	+	++
Recreation Impacts		++	++	0	0	+	+	++	++

Key

Extent of Change	Symbol	- -	-	0	+	++
Meaning		Widespread negative impacts	Negative impacts on certain sites or key use areas / outweigh positive impacts	Little or no change	Positive impacts on certain sites or key use areas / outweigh negative impacts	Widespread positive impacts

Rate of Change	Mid-term/ < 10 years	Long-term/ 10-20 years
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Appendix G-LJC	Summary of Environmental Impacts to Special Status Plants and Animals, Compared to Existing Conditions. Little Jacks Creek Users							
Special Status Species	Alternatives							
	LJC Proposed Action		Alternative 1 No Change		Alternative 2		Alternative 3	
	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term	Mid Term	Long Term
Redband Trout	++	++	+	+	+	++	++	++
Spotted Frogs	+	++	0	0	+	+	+	++
Kit Fox	+	+	0	0	0	+	+	++
California Bighorn Sheep	+	++	0	0	0	+	+	++
Mulford's Milkvetch	NA	NA	NA	NA	NA	NA	NA	NA
Mudflat Milkvetch	+	+	0	0	0	+	+	+

Key Extent of Change	Symbol	- -	-	0	+	++
	Meaning	Widespread negative impacts	Negative impacts on certain sites or key use areas / outweigh positive impacts	Little or no change	Positive impacts on certain sites or key use areas / outweigh negative impacts	Widespread positive impacts

Rate of Change	Mid-term/ < 10 years	Long-term/ 10-20 years
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